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## IMPACT OF INCREASED MINIMUM WAGE ON UNEMPLOYMENT RATE IN NIGERIA: AN EMPIRICAL ANALYSIS

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### Abstract

*This study examined the impact of national minimum wage rise on unemployment rate in Nigeria. It employed the Federal Government national minimum wage from 1980 to date and unemployment rates as released by the National Bureau of Statistics 2019 series. (ADF)Augmented Dicky-fullar model was used to check the stationarity of the data used which shows the combination of some variables being stationary at  $I(0)$  that is at level and some at  $I(1)$  that is at first differences (ARDL). The Autoregressive Distributed Lag model of econometric technique was employed to analyse the data, keeping unemployment rate as dependent variable, minimum wage, consumer price index, inflation, and money supply as the independent variables. Data used in the study were basically secondary. The study revealed that increment in minimum wage was positive and significant in both the long and short run implying that increase in minimum wage will raise the rate of unemployment in the economy which can have a negative effect on the country's GDP. INF, CPI, and MS were also significant in both runs, INF was negatively related to unemployment but CPI and MS were positively related to the level of unemployment.*

**Keywords:** Minimum Wage, Inflation, Consumer Price Index, Unemployment

### 1. Introduction

The Nigeria economy as a developing economy in the world is characterised with inequality distribution of income. There is a big gap between the rich and the poor which is getting wider by the day; while the political office holders have always enjoyed fat salaries and allowances, the workers in history have always been at the lower ebb of poor salary arrangement or structure. The country is said to be immersing with poverty which is a known fact, even the government of Buhari did not raise an eye brow when the Lady Prime Minister of Britain, Theresa May, (2018) lamentably branded Nigeria the poverty "Capital City" of the World. There is a substantial evidence that the country belongs to the group of lower income earners countries of the world with GNP per capita of \$US269 at pp in 2018 (World bank Report 2018). The poverty incidence of the country was reported to be 28.1% in 1980; rose to 43.6% in 1985, but dropped minimally to 42% in 1992 only to rose to 67% in 1996 (Alayande and Ande, 2004) and in 2000, rose to 74% and in 2017 to 83%. The expansion of any economy requires efficient distribution of resources in order to achieve continued economic growth. Numerous governments around the world set a minimum





wage in order to raise wages of workers whose wages are comparatively low. Wage increase is aimed at placing the workers in a favourable economic position by increasing their purchasing power in order to overcome their economic problems arising from high cost of consumer goods which has wind-swept the value of their wages. The Nigerian Government and the Trade Union Congress of Nigeria have recently been entangled in negotiation over what is a decent minimum wage that a worker should earn per month. After agitations, accusations and counter accusations between the organised labour and the Minister of Labour and Employment, Senator Chris Ngige, that culminated in strike actions and threats of indefinite nationwide strike, the President of the Federal Republic of Nigeria, Muhammadu Buhari approved N30, 000 new national minimum wage for Nigerian workers.

With the current minimum wage, Nigerian workers are barely surviving as prices of goods have skyrocketed and the exchange rate of the naira to the dollar has also gone up. Most of the workers cannot boast of three square meals per day, pay their house rents and ward's school fees as and when due, meet up with their socio-economic needs etc. (Nwambuko, 2019).

Minimum wage increases the living standard of workers, reduces poverty, and makes businesses more efficient. But in spite of all these, the big question is why does constant increase in minimum wage increase the level of unemployment and inflation? Given high level of inflation, many economies experience low productivity, thereby excluding some individuals from the labour market. Minimum wage increase can lead to negative impacts. In the traditional economic theory, firms will respond to an increase in labour cost by reducing demand for labour or increasing the output prices (Hamermesh, 1986; Brown, 1999). As a result, unemployment can be increased. Poor labourers, whom governments aim to protect by minimum wages, can be hurt by minimum wage increases. Although minimum wage increases are expected to increase prices, the scale of price increase depends on several factors such as the demand elasticity and competition degree (Aaronson, 2001).

Nigerian economy has been going through stiff times and is just about coming out from recession and with 1.7% economic growth in 2018 and not expecting to do better in 2019, the future does not read well for the country. Unemployment stands at 16.5% in 2017, youth unemployment 38%, inflation at 11.1%, consumer price index 214.2 index, inflation rate (GDP deflation) 11.1% price of diesel fuel 0.64usdollars/liter, price for gasoline 0.46% us dollars/liter, purchasing power parity 102.7lcuper international dollars, ppp for private consumption 123.6 lcu per international dollars (Knoema corporation 2019). Over 50% of Nigerian population live in poverty (quartz Africa 2018); death rate 15year old -60yrs is 31.83% per 100 populations, mortality rate 25.54% death per 100, morbidity rate12.46 in 2018; death rate in 2016 was 12.5 (Knoema.com 2016). According to the Federal Government of Nigeria News Bulletin (2019), domestic debt now stands at N15.6 trillion,



rises by N811.77 billion in three years (Punch 4/8/2018). For sure, this is not a picture of a healthy country where people enjoy a fairly good standard of living. The picture depicts a struggling economy with struggling people. Therefore, the paper examines the impact of minimum wage increase, rise in the level of unemployment and the impact of some macroeconomic indices like inflation, consumer price index, government spending on the level of employment in the Nigeria economy given the current state of affairs of the country.

## **2. Literature review**

According to Finley (1973), wage means all payment (other than fees paid to a public official) for services performed by an employee for his employer, including the cash value of all remuneration (including benefits) paid in any medium other than cash. The aim of the National Minimum Wage is to help increase incomes of the low paid. It has become more important in a labour market characterized by a decline in trade unions and growth of low-paid service sector jobs. Critics argue that a national minimum wage can cause unemployment because firms cannot afford the workers. Others argue that minimum wage rates are still too low and do not provide a “living wage” in certain areas of high housing costs, etc.

Economic theory suggests that the macroeconomic effect of minimum wage increases on gross domestic product (GDP) is ambiguous. Minimum wage increases may increase labour costs and output prices, reduce firms’ profits and job training, and cause adverse employment and hours effects, each of which may reduce in GDP. However, if minimum wage increases raise the earnings of low-skilled workers who keep their jobs—and these workers have a higher marginal propensity to consume an additional dollar of income than firm owners or low-skilled workers who lose their jobs—minimum wage increases will result in higher GDP (Sabia j. 2015) The impact of the minimum wage depends on the skill and experience of the worker. Highly skilled and experienced workers are not affected because their equilibrium wages are well above the minimum. For these workers, the minimum wage is not binding (Mankiw, 2011). The minimum wage has its greatest impact on the market for teenage labour.

### *Empirical Review*

Adams (1987) investigated the macroeconomic effects of minimum wage in the USA by employing a macro econometric model to simulate the effect of change or increase in minimum wage on economic variables such as real wage, employment, unemployment, price level and real gross national product (GNP). He found that an increase in minimum wage would have a corresponding increasing effect on price level and unemployment. Adam’s findings are similar to those of Brown et al (1982), who used time series regression to analyse the effects of minimum wage on employment and unemployment. They found that the magnitude of the impact of minimum wage on employment and unemployment is dependent on the prevailing economic situation, though the finding



indicated a positive relationship between minimum wage and unemployment, and a negative relationship between minimum wage and employment. The unemployment rate is influenced by the wage rate factor (Mankiw, 2011: 21), whereas the increase in wage purposes improves the living standard of the worker, further increases the purchasing power of the people, which ultimately increases the demand for goods and services that can increase the rate of inflation. The impact of minimum wages on unemployment has a significant positive impact on unemployment (Huang, Loungani, Wang, 2014). This means that every minimum wage increase results in an increase in the number of unemployed. Other results suggest that minimum wage laws have no significant relationship to unemployment (Bhorat, Kanbur & Mayet, 2012; Dinkelman & Ranchhod, 2010; Hertz, 2005).

Damachi (2001) in his study of past policy measures for solving unemployment problems in Nigeria suggests that there is a strong need for institutional collaboration and improved coordination of policy measures for dealing with unemployment. He stated that while there are some discernible lapses, the overall policy direction for employment appears to be adequate. According to him, what is required is the political will to pursue the policy measures backed by adequate steps to make the policies work as well as transparency in programme implementation. Yesufu (1984), in his study, argues that higher labour productivity can reduce unemployment. This can be explained by the marginal productivity principle which says that employers will hire more labour up to the point where the value of marginal product of labour equals marginal labour cost (Okojie, 1995). Thus, an increase in marginal productivity labour indicates that employment of labour would have to increase in compliance with the marginal productivity principle. However, Diacharbe (1991) holds a contrary view which says higher productivity of labour may increase unemployment. This is because fewer workers can be used to achieve a given level of output, while the redundant workers may be laid off. According to Prokopenko (1992), a decline in the productivity of labour would always lead to economic deterioration and a consequent rise in unemployment rate. Sanusi (1997), in his study titled stimulating investment through interest rate management, reported that interest rate has positive relationship with unemployment that is, a lower interest rate encourages private investment spending which will increase the demand for labour and reduce unemployment. According to him, high interest rate (Prime Lending Rate) has characterized the Nigerian economy over the years and this has adversely affected the manufacturing sector which ought to significantly reduce unemployment.

Bittencourt (2010) reviewed inflation and economic growth and examined poor macroeconomic performance at high inflation rates in four countries in Latin America (Argentina, Bolivia, Brazil, Peru) from 1970 to 2007 using panel data. The results showed that higher rates of inflation both significantly and negatively affected economic growth in all four countries. High rates of inflation led to many expensive economic activities, especially in traditional and developing economies. Aminu and Anono (2012) conducted a



study on the relationship between unemployment and inflation. The study revealed negative relationship between unemployment and inflation and no causation between unemployment and inflation; though they found that there is long-run relationship between the two phenomena in Nigeria.

#### *Theoretical Framework*

Productivity Shocks theory: George Stigler, writing in 1946 after the passing of the Fair Labour Standards Act, argued that an effective minimum wage law would have two direct impacts; firstly, the termination of those workers whose marginal product caused them to be valued significantly below the minimum wage rate, and secondly that the productivity of low-wage workers may in fact increase (Stigler, 358). The first effect will be more pronounced if worker's value (in competitive wage market terms) is significantly below the minimum wage, as well as if the elasticity of demand in the market is higher. In labour markets with more elastic demand, firms will be more strongly responsive to shifts in the price of labour. Hence, if labour becomes costlier, firms will decrease their labour costs by more, meaning those less-skilled workers are more likely to be laid off. The second result, the shock to productivity, was seen as a somewhat offsetting effect to layoffs by Stigler, as has been agreed upon by many other economists since. Stigler himself noted that these productivity gains could be from low-wage workers fearing poverty, though he acknowledged this seemed unlikely. Much more likely, he asserted, was that entrepreneurs would implement new production techniques. This could be due to the sudden viability of previously unprofitable techniques, as "superior" labour is brought in, albeit in smaller numbers (Stigler, 359). This argument remains popular to this day, with modern day practitioners and pundits suggesting higher retail wages will inevitably lead to the automation of menial roles like checkout clerk or warehouse worker (Rotman). This was the thrust of Friedman's classic argument, as in 1966 he claimed minimum wages "will also induce employers to replaces such workers with other workers...or to produce machinery to do the same work" (Friedman).

Two-Sector Models: First and foremost, the 1970s saw an expansion of the theoretical economic models explaining the impact of a new (or higher) minimum wage on employment. In 1973, Finis Welch observed the lack of total coverage across sectors of the Fair Labour Standards Act of 1938. The law often depended upon industry, product line, size of the firm, and for twenty-three years the guidelines went wholly unchanged (Welch, 1). As a response to this observation, he constructed a simplified two-sector model attempting to explain the response of employment across the economy to a wage price floor in only some sectors. Welch's model had one industry covered by the minimum wage adjusted as expected by classical theory; the minimum wage was implemented and hence employment fell in that sector. However, a number of workers migrate over to the uncovered sector of the economy, and so employment in that industry grew following the minimum wage implementation in the covered sector. As not all workers would migrate across industries, depending on their own 'reservation wage', the effect of the minimum



wage on total employment across the economy was dependent on the elasticity of labour supply and reservation wage rates, as well as the relative size of the covered and uncovered sectors.

### 3. Methodology

In determining the kind of methodology to be used in the analysis the study wants to carry out the stationarity test using the unit root test of Augmented Dicky fuller to check whether the data are fit to be used. The data employed in this study are secondary data which were obtained from the World Bank data, Central Bank of Nigeria statistical bulletin and Bureau of statistic from 1984 to 2019 using annual time series data.

#### *Unit Root Test*

An Augmented Dicky-fuller (ADF) of (1979) test is a test for a unit root in a time series sample. This will be used to trial-test the level of stationary of variables as a pre-estimation test to perceive whether the data is fit for use and the type of regression model to be employed. This test reflects on the various level of ADF such as unit root test at ‘level’ and at ‘1<sup>st</sup> difference’ to test for stationarity for the regression model that will fit in the data analysis. The assorted level of stationarity can either be at; constant, constant and trend and none. This can be mathematically written as;

$$\Delta X_t = \mu + ax_{t-1} + \sum_{i=1}^k \beta \Delta X_{t-1} + \varepsilon_t \dots\dots\dots 1$$

$$\Delta X_t = \mu + \beta t + ax_{t-1} + \sum_{i=1}^k \beta \Delta X_{t-1} + \varepsilon_t \dots\dots\dots 2$$

$$\Delta X_t = ax_{t-1} + \sum_{i=1}^k \beta \Delta X_{t-1} + \varepsilon_t \dots\dots\dots 3$$

Where;  $\Delta$  denotes the first different operator,  $x_t$  is the variable under consideration,  $\mu$  is the constant term,  $t$  is the time trend,  $x_{t-1}$  is the lag of the series being tested,  $k$  denotes lag length,  $\Delta X_{t-1}$  is the first difference lagged series usually taken to eliminate the problem of serial correlation (Dickey and Fuller, 1979) and  $\varepsilon$  is the white noise process with  $\varepsilon_t$  with  $\varepsilon_t$  iid ( $\sigma^2$ ). The term  $k$  in this test is automatically determined by Schwarz Information Criterion (SIC) or Akaike Information Criterion (AIC) to get the optimal lag length and ensure white noise process of the residuals.

$$UNEM = F(\text{MINW}, \text{MS}, \text{CPI}, \text{INF}) \dots\dots\dots 4$$

Where

UNEM represents unemployment rate, MINW = minimum wage rate, CPI= consumer price index, INF represents inflation rate, MS = money supply, F denote function

#### *Econometric Model*

$$UNEM = \beta_0 + \beta_1 MS + \beta_2 INF + \beta_3 CPI + \beta_4 MINW + \mu_t \dots\dots\dots 5$$

$\mu_t$ = disturbance term (error term) which captured others factors that were not incorporated in the model, although they can affect the model



$\beta_0$ = parameter intercept/constant,  $\beta_1, \beta_2, \dots$ , = coefficient of the independent (exogenous) variables

Furthermore, UNEM is regarded as dependent variable (DV) in the model, while money supply, minimum wage, consumer price index and inflation rate are independent variables (IV). Dependent variables are variables that are determined by the model (or endogenously). On the other hand, independent variables are those variables that are exogenously determined.

*Estimation Procedures*

Autoregressive distributed lagged model (ARDL): It is a model commonly engaged when working with a time series data. Perasan and Shin (1995) and perasan (1996) developed ARDL approach to co-integration or bound procedure for a long run relationship regardless of whether the fundamental variables are  $I(0)$ ,  $I(1)$  or are both combined. ARDL does not consider the problem arising from the different order of co integration of the variables. We use variables in natural logarithm form to analyse the implication of the relationship among the macroeconomic variables. The use of ARDL approach to co-integration will give realistic and efficient estimates. The ARDL approach helps to identify the co integrating vectors. That is, each of the identifying variables stands as a single long-run relation equation. If one co-integrating vector is identified, the ARDL model of the co-integration vector is reparametrized in to Error Correction Model (ECM). The reparametrized result gives short-run dynamics and long-run of the variable of a single model. The reparametrized is possible because the ARDL is a dynamic single model equation and of the same form with the ECM. Distributed lag model simply means inclusion of unrestricted lag of regressors in a regression function.

*Discussion of Findings*

Table: 1 Unit Root Test

Variable	Constant without trend		Constant with trend	
	Level	1 <sup>st</sup> Difference	Level	1 <sup>st</sup> Difference
UNEM	-3.444**	-2.737	-3.251**	-7.928***
MINW	0.740	-1.602	-4.526***	-4.831***
INF	-3.120*	-3.127*	-5.439***	-5.150***
CPI	-1.540	-1.879	-4.638***	-5.157***
MS	-3.548**	-2.169	-5.576***	-5.482***

Note: \*\*\*, \*\* and \* represent significance level at 1%, 5% and 10% respectively. The figures are the t-statistics for testing the null hypothesis that the series has unit root. The lag length is determined automatically based on Schwarz information criteria. The critical values for intercept without trend are -4.284580, -3.562882 and -3.215267 whereas, for intercept with trend the values are -3.661661, -2.960411 and -2.619160 for 1%, 5% and 10% respectively.

From Table 1 above, the data are stationary at 1<sup>st</sup> difference and some at level. Variable such as Inflation (INF) is stationary at 1<sup>st</sup> difference at intercept while stationary at level



and 1<sup>st</sup> difference at intercept and trend deterministic. Money supply (MONS) is stationary at level and at 1<sup>st</sup> difference under trend and intercept, and also consumer price index (CPI) is stationary at 1<sup>st</sup> difference at trend and intercept as indicated in the table above. UNEM is also stationary at level and 1<sup>st</sup> difference under trend and intercept, and lastly minimum wage (MINW) is stationary at 1<sup>st</sup> difference under trend and intercept.

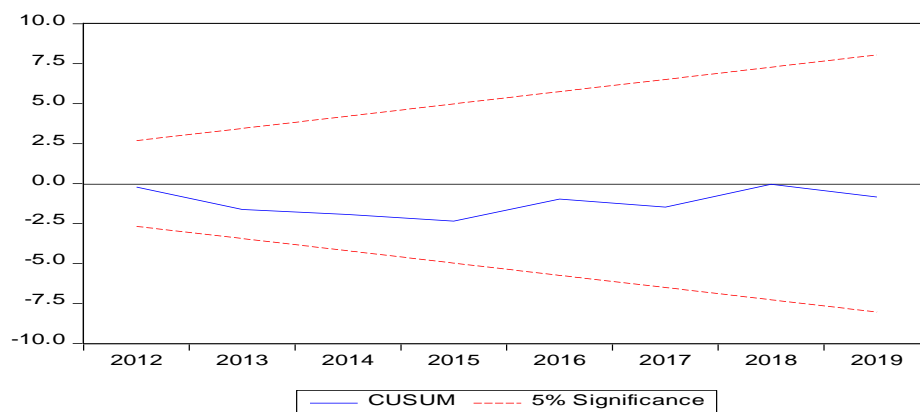
### Diagnostic Testing

Table 2: Diagnostic Table

Diagnostic	T-statistic (prob)
R <sup>2</sup>	0.839315
Adjusted R <sup>2</sup>	0.976687
Durbin Watson	3.187602
F- statistics	108.4678(0.00000)
Heteroskedasticity:(F- statistics)	0.277627 (0.9905)
Serial correlation LM test (F- statistics)	0.27762 (0.9905)

The result above shows that the model passes all the diagnostic test performs for R<sup>2</sup> adjusted R<sup>2</sup> Durbin Watson, and heteroskedasticity and LM serial correlation test respectively. This implies that we can safely reject the null hypothesis that there is no autocorrelation among the variables as indicated in the table above.

### Stability test



The result of the cumulative sum of the residual (CUSUM) result shows that the model is stable and evidenced the stability of the long run coefficient of the explanatory variables. Since the CUSUM is within the region of acceptance, we can further estimate the model analysis such as the long run, short run, etc.



*Bound Test for Co Integration*

Bound test will be conducted to check for long run relationship among the variables used in the model. The value of F-statistic shall be used to test for the hypothesis whether to accept or reject the hypothesis. If the value of the F-statistic is greater than the 1% upper bound test, we can safely reject the null hypothesis and accept the alternative that there is evidence of long run relationship among the variables.

Table 3: The result of ARDL co integration test

Bound Test to Co integration		
F (MINW, INF, MS, CPI)		
Optimal lag structure	ARDL (2, 2,2,)	
F-statistic 57.46461		
Significant level	critical value {Lower bound 1(0)}	critical value {upper bound 1(1)}
10%	3.09	2.2
5%	3.49	2.56
2.5%	3.87	2.88
1%	4.37	3.29

The value of f-statistic figures tests for null hypothesis that there is no co integration among the variables used. To demonstrate the co integration relationship among Gross Domestic Product (GDP) and its determinants, an overall significant F-test for the null hypothesis of no co integration relation was analysed. The result of the F-test for co integration test is = 57.46461 which is higher than upper bound and lower bound critical values at all levels as shown above.

Table: 4: Long Run Results

Dependent variable (LGDP)				
EC = UNEM - (0.0003*MINW -0.1321*INF -0.0549*CPI + 1.9619*MS - 18.9908 )				
Variable	Coefficient	standard error	t-statistic	(p-value)
MINW	0.000348	0.000166	2.096070	(0.0694) *
INF	-0.132130	0.015002	-8.807304	(0.0000) ***
CPI	0.054915	0.021055	-2.608185	(0.0312) *
MS	1.961907	0.362003	5.419584	(0.0006) ***
C	-18.99077	4.753223	-3.995345	(0.0040) **

Note: \*, \*\*, \*\*\* represent 10% 5% and 1% significant level respectively.





Table: 5 Short Run Coefficient Dependent Variable Gross Domestic Product (LGDP)

Variable	coefficient	standard error	t-statistic	(p-value)
UNEM	1.187849	0.257930	-4.605310	(0.0017) **
MINW	0.001071	0.000113	-9.498702	(0.0000) ***
INF	-0.110763	0.031364	-3.531543	(0.0077) **
CPI	1.017555	0.114318	8.901076	(0.0000) ***
MS	1.046175	0.442605	2.363676	(0.0457) *
C	40.12247	11.22451	3.574539	(0.0072) **

Note: \*, \*\*, \*\*\* represent 10%, 5% and 1% significant respectively.

From the long run and short run tables above the long run result shows that the minimum wage MINW was positive and significant at 10% and also positive and significant at 5% in the short run which shows that in the long run and short run an increase in minimum wage will increase unemployment by 0.03% in the long run and by 11.8% in the short run which can be shown as the influence of additional money in the economy will increase the rate of unemployment in such economy. Inflation INF was negative and significant in both the short and long run at 5% and 1% respectively which implies that a low inflation rate of an economy will help reduce the unemployment rate by 13% and 11% respectively in both the long run and short run. Consumer price index CPI was also positive and significant at 10% in the long run and at 1% in the short run, which implies that increase in consumer price index will increase unemployment rate in both the long run and short run by 5%. Money supply (MS) is positive and significant in both the long run and short run at 1% and 10% level of significant, showing an increase in money supply increase unemployment rate in the economy by 196% in the run long.

#### Discussion of result

The result of the bound test revealed that there is long runs relationship which implies the rejection of the null hypothesis of no co integration (no long run relationship) among the variable. The long run result revealed that, in the long run MINW is positively related to unemployment rate showing that an increase in minimum wage increases the rate of unemployment and likewise affects the GDP of an economy which is in line with studies (Huang, Loungani, Wang, 2014) that state that the impact of minimum wages on unemployment, has a significant positive impact on unemployment. This means that every minimum wage increase results in an increase in the number of unemployed. And also a study from Adams (1987) investigated the macroeconomic effects of minimum wage in the USA by employing a macro econometric model to simulate the effect of change or increase in minimum wage on economic variables such as real wage, employment, unemployment, price level and real gross national product (GNP). He found that an



increase in minimum wage would have a corresponding increasing effect on price level and unemployment. Money supply MS and consumer price index CPI also shows a positive relationship with unemployment rate which is in line with the study of Diacharbe (1991) that holds a contrary view which says higher productivity of labour may increase unemployment. This is because fewer workers can be used to achieve a given level of output, while the redundant workers may be laid off. Sanusi (1997), in his study titled stimulating investment through interest rate management, reported that interest rate has positive relationship with unemployment; that is, a lower interest rate encourages private investment spending which will increase the demand for labour and reduce unemployment. According to him, high interest rate (Prime Lending Rate) has characterized the Nigerian economy over the years and this has adversely affected the manufacturing sector which ought to significantly reduce unemployment. Inflation INF which is negatively related to unemployment is in line with the study of Bittencourt (2010) which reviewed inflation and economic growth and examined poor macroeconomic performance at high inflation rates in four countries in Latin America (Argentina, Bolivia, Brazil, Peru) from 1970 to 2007 using panel data.

#### **5. Conclusion and Recommendations**

Given the empirical outcomes obtained above, this study has a number of policy implications for both the monetary authorities and the national governments. In all stages of economic growth in Nigeria, great reliance has been placed on the minimum wage as the medium to better the life of a labourer and to increase the performance of the economy for when a new wage is implemented there will be a better chance of transactions, more savings which eventually will lead to investment thereby leading to a greater performance of the economy but on a reality this aim for a new wage is defeated due to the constant hike in inflation when the new wage is implemented, and the high rise in the rate of unemployment in the economy. It is recommended that policy makers should ensure there is a proper check and balance when a new wage is implemented so as to ensure the rate of unemployment does not increase. While increasing the minimum wage, the government should create an enabling environment for people through investment in massive infrastructure and other basic amenities so as to drive down cost of production, State governments should choose to use the federal wage or make their own laws indicating the amount they can pay as the new minimum wage given the consequential effect (cost) of wage adjustment for other categories of workers and citizens as a result of increasing the minimum wage.

State governments should choose to use the federal wage or make their own laws indicating the amount they can pay as the new minimum wage given the consequential effect (cost) of wage adjustment for other categories of workers and citizens as a result of increasing the minimum wage. The Federal and State Governments, since they are presumably not planning the mass sack of workers in order to meet up with the obligations that will be placed on them by the new minimum wage, must work assiduously towards



increasing their revenue profile. They must demonstrate renewed commitment to cutting costs and eliminating wastes in the system. The government must be creative in the management of public finances rather than perpetuating the defeatist practice of blaming previous governments for the present state of affairs. A best policy that can be suitable for reducing unemployment rate given a rise in minimum wage should be implemented.

Compliance to law by both the state governments and the private sector should be ensured by the Federal Government. It is one thing to pass laws and another is to implement them. Therefore, since the minimum wage is a law, state governors and entrepreneurs should be encouraged to comply.

#### *Suggestion for further research*

The research span from 1987 to 2019; it is recommended or suggested for other researchers to expand the scope of study to see the impact of new minimum on unemployment rate in Nigeria. It is also recommended that more minimum wage variables can be utilised to checkmate the impact of minimum wage on unemployment in Nigeria via other econometric methods and approaches.

The examination of minimum wage growth in Nigeria has been positive, however, it should be judged against other nations to see if such relationship also exists between them. The tribulations of new minimum wage in Nigeria should also be investigated for more improvement on the worker's performance to ensure utmost contribution of the labour to the country.

#### **Reference**

- Aaronson, D. (2001), "Price Pass-through and the Minimum Wage", *The Review of Economics and Statistics* 83(1): 158-169.
- Alayande, B. A. and Alande, S. (2004) "Determinants of Vulnerability to Poverty" *A World Bank Commissioned Study*.
- Bhorat, H., Kanbur, R., Mayet, N, (date?) The Impact of Sectoral Minimum Wage Laws On Employment, Wages and Hours of Work in South Africa. *DPRU Working Paper, 12(155), 2012,1-27*.
- Brown, C., Curtis G. & Kohen, A. (1982). The Effect of the Minimum Wage on Employment and Unemployment. *Journal of Economic Literature, 20(2),482-528*.
- Dickey, D., and Fuller, W. (1979). "Distribution of the Estimators for Autoregressive Time Series with a Unit Root," *Journal of the American Statistical Association, 74, 427-431*
- Damachi N.A (2001) Evaluation of Past Policy Measures for Solving Unemployment Problems, in *CBN Bullion vol. 25 No 4*.
- Dinkelmann, T and Ranchhod, V, Evidence on the impact of minimum wage laws in an informal sector: Domestic workers in South Africa. *A Southern Africa Labour and Development Research. Unit Working Paper (44), 2012,1-59*.
- Finley, M. I. (1973). *The Ancient Economy*. Berkeley: *University of California Press*.
- Friedman, Milton. "Minimum-Wage Rates." *Newsweek* 26 Sept. 1966: n. pag. Web.



- Huang, Y, Loungani, P, Wang, G, Minimum Wages and Firm Employment: Evidence from China. *IMF Working Paper*, 14 (184), 2014, 1-47.
- Knoema. Cooperation. Com 2019
- Mankiw, N. G. (2011), Principles of Economics, Sixth Edition, USA: *South-Western Cengage Learning*
- Nwambuko, Temple Chukwukadibia (PhD, FCPA), Amaechi, Obinna Charles, Iloh, Angela U. (FCPA), (2019) *International Journal of Management, Social Sciences, Peace and Conflict Studies (IJMSSPCS)*, Vol.2 No.2 June, 2019; p.g. 18 – 26; ISSN: 2682-6135(Print)
- Pesaran, M. H., and Shin, Y. (1995). An Autoregressive Distributed Lag Modelling Approach to Co integration Analysis. *Centennial Volume of Rangar Frisch, Cambridge University Press. Cambridge, (1999).*
- Prokopenko, J (1992) Productivity Management, *A Practical Handbook H.O.Geneva*
- Punch Nigeria, July 2019, *Nigeria Debt Management Office Bulletin, 2018*
- Stigler, George J. “The Economics of Minimum Wage Legislation.” *The American Economic Review* 36.3 (1946): 358-65. *JSTOR [JSTOR]. Web. 23 June 2016.*
- Welch, Finis. “Minimum Wage Legislation in the United States.” *The Rand Paper Series (1973): n. page. Web. 02 July 2016*
- Sabia, J. J., and R. Nielsen. “The effect of minimum wages on material hardship: Evidence from the SIPP.” *Review of Economics of the Household* 13 (2015):95–134.
- Sanusi J.O (1997), “Stimulating Investment Through Interest Rate Management” *The Economy, Nov. 10 p.18 16.*
- Yesufu T.M (1984), “The Dynamics of Industrial Relations, *The Nigerian Experience*”. (Ibadan, University Press).



**WORK-PLACE CORDIAL RELATIONSHIPS AND JOB SATISFACTION:  
EVIDENCE FROM NIGERIAN SECURITY AND CIVIL DEFENCE CORPS,  
ABUJA COMMAND**

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**Abstract**

*The research is a study of work-place cordial relationships and job satisfaction: evidence from Nigerian Security and Civil Defence Corps, Abuja Command. The study population is four hundred (400), being the number of NSCDC personnel in Abuja command. The study adopted Watson (2001) statistical formula and scale for determining sample size based on 95 percent confidence level. A margin error of 0.05 and a variability degree of 20 percent was used due to the homogeneous nature of the study population, while a sample of fifty (50) was drawn for the study. Data were collected using questionnaire and analysed using descriptive and inferential statistics. Descriptive statistics, tables with frequencies, simple percentages, regression using Kendall's correction and inferential statistics were used as tools for analysis of the data generated for the study. Findings suggest that there is a very good workplace cordial relationship amongst personnel of the corps, which has enhanced job satisfaction in the organisation. The study recommends that the spirit and tempo of the good workplace relationship which hitherto has existed in the NSCDC and led to job satisfaction amongst officers and men should be maintained and further enhanced.*

**Keywords:** Workplace, cordial relationship, job satisfaction

**1. Introduction**

Cordial relationships in organisations have today become one of the delicate and complex problems of modern society. Pemilu and Farmhan (2005) submitted that organisational progress is therefore impossible without harmonious relationships in the workplace. Consequently, the greatest failings of all top-to-down command-style management of organisations are to ignore the level of interpersonal relationships that exist among employees at different levels. Akiko (2012) believes that interpersonally developed relationships in organisations have always been known to contribute positively to the betterment of such organisations.

The Nigerian State which has been faced with-serious crisis of development resulting in different shapes of insecurity and criminalities decided to establish the Nigeria Security and Civil Defence Corps (NSCDC) through an instrument of law which commenced on the 28th of May, 2007 as a new outfit to curb further spread of insecurity and non-compliance



to its laws and regulations. Its mandates amongst others, are to assist in the maintenance of peace, law, and order; protection and rescuing of the civil population during any period of emergencies; maintenance of twenty-four-hour surveillance over infrastructures, sites, and projects of the Federal, State and Local Governments; enter and search any premises and seize any material suspected to have been used for vandalization or suspected proceeds of vandalization, arrest with or without a warrant, detain, investigate and institute legal proceedings by or in the name of the Attorney-General of the Federation; handle issues that have to do with riots, civil disorders, revolts, strikes, religious unrests, investigation of activities aimed at depriving citizens of their properties or lives or Syndicate activities aimed at defrauding the Federal, State, or Local Government amongst many others (NSCDC Amendment Act, 2007).

As a paramilitary body, discipline, loyalty, respect, and obedience in carrying out the official assignment are expected to be done with military precision and to some extent the adoption of the use of legal weaponry. Consequently, official duties and assignments are also expected to be carried out by officers and men of the corps with specific orders and directives in line with the corps mandate. The issue of interpersonal relationships in the workplace is strictly done in formal terms and may not really have a role to play in the accomplishments of directives or instructions to officers and men of the corps.

It may be assumed that by the paramilitary nature of the organisation, in the course of carrying out the daily activities in the workplace, rifts, clashes, suspicions and lack of cooperation may become daily occurrences which might in the end affect productivity and general job satisfaction. This has become a worrisome development as experienced by other sister security cum military organisations. Thus, the researcher is motivated to investigate the extent and levels of interpersonal relationships that exist amongst its personnel and how this relationship can affect job satisfaction. Specifically, the study is targeted at ascertaining the levels of cordial relationships that exist amongst officers and men of the NSCDC; and to determine the factor(s) that necessitate the level of job satisfaction of personnel of NSCDC.

## **2. Review of Literature**

Damachi (2006) asserted that good cordial relationships in organisations may not be synonymous with the peace of the graveyard nor is it a complete absence of strife, while Pemilu and Farnham (2005) are of the view that cordial labour relationship has become one of the most delicate and complex problems of modern society; organisational progress is therefore impossible without the cooperation of and harmonious relationship in the workplace. Therefore, it is in the interest of all to create and maintain good relations between employees and management for the overall success of the organisation and job satisfaction of employees. But, Gordon and Hartman (2009) pointed out that when people spend about 50 hours per week in the workplace or institution of work, employees are most



probable to develop workplace friendships than any other kind of relationship in the organisation.

On the other hand, Rea (2015) while discussing cordial relationships in an organisation, corroborated the above statements when he submitted that open lines of communications can be informal, such as day-to-day interactions between employees and supervisors, leading to the adoption of formal mechanisms for employee feedback and hitherto, creating workplace satisfaction. Akiko (2012) averred that one of the greatest failings which result from the “top-down” type of management is for management to ignore the knowledge that exists interpersonally at the other levels or units of an organisation”.

On the other hand, Purcell (2014) asserted that when employees are engaged, they show initiative, positively trying to contribute to and working above what is expected of them because of the feeling of belongingness to such organisations. This implies that employees who are engaged will be committed to the organisation and will ensure their continued stay in such organisations. Albrecht et’ al. (2016) and Shantz (2013) while contributing to the discussion on the importance of cordial relationships in organisations maintained that feelings of belongings may also contribute to employees having a positive perception about the organisation and its activities.

However, Iqbal (2015) supporting other authors above, maintained that employees showed commitment in a supportive, co-operative, and an energetic climate which leads to employees own satisfaction and commitment, this is supported by Kubendran et’ al. (2013) when he opined that when employees are respected and valued by the organisation, they put in much effort for the organisation’s growth. In their studies, Moye, Henkin, and Egley, (2004) cited in (Bashir, 2012) concentrated on the issue of trust in an organisation when they asserted that “trust helps to maintain positive working environment facilitating honest and supportive relationships.

According to them, these facilitate knowledge sharing and may have an effect on the quality and quantity of knowledge shared for overall job satisfaction. They also maintained that trust helps to retain a positive organisational environment resulting in honest and supportive relationships, and acts as an important factor for positive partnership and communication which is the foundation for vibrant relationships for employees; the willingness to co-operate and empower their ability to handle crises when they occur among them is thus enhanced.

Consequently, where there is no trust, employees are less inspired to take risks, they will therefore demand greater security to avoid chances of betrayal, and only care about their privileges. However, Bashir (2012) cautions on employees’ tendency to gossip and be careful with the rate at which information of betrayal can spread across the working environment which makes trust difficult to establish. Janz and Prasarnphanich (2003) cited in (Kubendran, 2013) were of the view that when a cooperative climate exists in





organisations, employees are more prone to working together to share and acquire tacit knowledge and try to encourage each other's performance and learning, and their satisfaction with the job can therefore be enhanced.

Morrison (2004) however, concluded on the issue of informal relationship and job satisfaction in the workplace when he submitted that informal relationships between people in organisations can potentially either hinder or facilitate organisational functioning and job satisfaction amongst employees. For him, the presence of informal relationships at work and the degree of cohesiveness perceived by individuals was investigated in two studies, and it was found that cohesiveness and opportunities for friendships increased job satisfaction which led to increased organisational commitment and decreased turnover intentions.

#### *Theoretical Framework*

The researcher has adopted the use of two theoretical perspectives to explain the NSCDC, cordial relationship, and job satisfaction. They are: Human relations theory and Herzberg Two-factor theory of Motivation and Job Satisfaction.

**Human Relations Theory:** The theory comes from the human relations school with exponents who are scholars: Maslow (1943) and Mayo (1946). The main postulation of this theory is the reduction of organisational tension and conflicts which is expected to rest on the ability of individuals to achieve self-fulfillment in the workplace. This theory also posits that when workers are regarded as qualitatively different from other resources in an organisation and are given sufficient consideration and motivations within a good working environment, together with opportunities for growth and job progression, better emoluments, and recognition, such organisation is sure to be appreciated by its workers. Therefore, it is presumed that a cordial relationship and job satisfaction can be enhanced.

**Herzberg Two-factor theory of Motivation and Job Satisfaction:** Fredrick Herzberg's two-factor theory states that there are two separate factors that can contribute to job satisfaction in the workplace. The two factors are Motivation and Hygiene factors. Each of these factors has its separate postulations and they act independently of each other in the workplace. The absence of any of those factors may create a lack of satisfaction in the workplace. The following are the postulations of the theory and inherent factors responsible for job satisfaction. They are:

(a) Motivational Factors (i) Achievement – A job must give an employee a sense of achievement and pride. (ii) Recognition – A job must provide an employee with a sense of recognition and praise after success. Such recognition should come from superiors and the employee's peers. (iii) Advancement – A job may provide promotion opportunities for employees. (iv) Responsibility – A job must provide an employee with a sense of responsibility, an employee should be able to own their work. (v) Work itself – must be interesting, varied to provide enough challenge to keep employees motivated.





(b) Hygiene Factors (i) Company Policies – Organisations should be fair and clear to the employee. (ii) Supervision – Organisation should be fair to the employee by giving them much opportunity to do work without strict supervision. (iii) Work condition – Organisational environment must be conducive, safe, and hygienic. (iv) Salary – The organisation's pay package should be reasonable and fair. (v) Status – Performing meaningfully in an organisation can provide a sense of status. (vi) Security – Organisations with high job security grow some sense of satisfaction to the employee and remove the fear of loss of a job.

Applying the Herzberg theory to the NSCDC Abuja, the organisation seems to have all it takes for the development of good workplace cordial relationships and job satisfaction in the organisation. This, to the researcher, may be unconnected with the prevalence of motivational and hygienic factors established by the top hierarchy of the organisation in Abuja. Factors such as advancement for its personnel through yearly promotions subjects to availability of vaccines cannot be over-emphasized, other motivational factors such as the opportunity for growth in the organisation, this is also expected to play a role in the job satisfaction of officers and men of the corps, when personnel of the corps have opportunities for career training, their appreciable level of job satisfaction is enhanced.

In terms of the responsibilities of officers and men of the corps, the NSCDC has a well-designed schedule of duty for its personnel and are left alone to meet up with the challenge of getting the desired outcome without very close supervision. Any organisation that has more of the above motivational factors is capable of guaranteeing job satisfaction to its personnel. Herzberg's Hygiene factors which also play significant roles in enhancing job satisfaction in organisations. The researcher opines that NSCDC is an organisation that has the following hygienic factors; work condition factors, the Abuja Headquarter of the NSCDC is very conducive for work, the environment is very clean and hygienic and in terms of job security, the organisation which is already backed up to an enabling law allows its employees to enjoy gratuity and pension on retirement, the salary too is appreciably attractive enough to stimulate job satisfaction while the personnel is allowed to their daily roles strictly in line with their schedules of duty without very close monitoring or supervision, hence they enjoy unrestricted cordial relationships while on duty and cooperation devoid of unnecessary malice.

Therefore, the motivational and hygienic factors inherently established by the hierarchy of the corps have increased the tendency of personnel to be satisfied with their jobs. Herzberg believes that all dissatisfactions factors must therefore be put away for job satisfaction to be enhanced in organisations. The researchers may therefore wish to safely conclude that going by the above theory, and considering the NSCDC in Abuja, Nigeria, its policies on personnel advancements, yearly promotions for deserving offices and men, and its career growth through training, recruiting, and workshop courses/programs.



The NSCDC also has well-designed schedules of duties which allow officers and men to perform optimally without very close supervision, conducive work environment, personnel recognition for excelling staff, job security and good salary and other emoluments including retirement benefits, insurance packages, gratuities, and pensions which have all contributed to placing the NSCDC as an organisation which best describes Herzberg’s postulations on motivation and job satisfaction.

### 3. Methodology

NSCDC Abuja command is the study location while survey design was adopted for the study. The study population is four hundred (400) being the number of NSCDC personnel in Abuja command. Applying Watson (2001) statistical formula and scale for determining sample size to the study population of four hundred (400) based on 95 percent confidence level, and a margin error of 0.05, a variability degree of 20 percent was used due to the homogeneous nature of the study population, a sample of fifty (50) was drawn for this study. Data were collected using questionnaire and analysed using descriptive and inferential statistics. The descriptive statistics involved the use of statistical tables with frequencies and simple percentages while regression and Kendall’s correction statistics were the inferential statistic tool used to analyse the data generated for this study.

### 4. Results

Result from analysis of socio-demographic characteristics presented in Table 1 shows that 24.5 per cent of the respondents are between the ages of 18-28 years, 46.9 per cent between the ages of 29-39 years. 28.6 per cent are between the ages of 40-50 years. Most of the respondents are between the age brackets of 29 – 39 years being their productive years.

Table 1: Socio-demographic Characteristics of Respondents

Variables	Categories	Frequency	Percentages
<i>Age</i>	18-28 years	12	24.5
	29-39 years	23	46.9
	40-50 years	14	28.6
<i>Gender</i>	Male	28	57.1
	Female	21	42.9
<i>Marital Status</i>	Never Married	14	28.6
	Married	32	65.3
	Widow	-	-
	Divorce	-	-
	Missing Values	3	6.1
<i>Educational Qualification</i>	Secondary Cert.	11	22.5
	Tertiary Cert.	33	67.3
	Others	5	10.2
<i>Total</i>		49	100

Source: Field Survey, 2019.



The result from Table 1 also shows that 57.1 per cent of the respondents are males while 42.7 per cent of the respondents are females. In terms of marital status of the respondents, the result shows that 65.3 per cent of the respondents being the majority are married while 22.5 per cent are never married.

Table 1 also shows results with respect to the educational qualifications of the respondents. As shown, 67.3 per cent, being majority of the respondents, had tertiary education certificates, and holders of tertiary certificates while 22.5 per cent out of the total sampled respondents are holders of secondary education certificate. The result shows that, most of the officers and men of the NSCDC are holders of tertiary education certificates.

**Table 2: Respondents views on satisfaction with NSCDC departmental/unit posting**

Rating of satisfaction		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Satisfied	43	87.8	89.6	89.6
	Not satisfied	5	10.2	10.4	100.0
	Total	48	98.0	100.0	
Missing	System	1	2.0		
Total		49	100.0		

*Source: Field Survey, 2019.*

On whether personnel of the Nigeria Security and Civil Defence Corps are satisfied with Unit postings, data from Table 2 show that they were satisfied; this has been affirmed by 89.6 per cent respondents. This is a good development indicating that there is no malice during posting, which may be adduced to be reasons for good cordial relationships in an organisation.

**Table 3: Respondents views on Satisfaction with NSCDC official deployments/ transfers**

Rating of satisfaction		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Satisfied	38	77.6	84.4	84.4
	Not satisfied	7	14.3	15.6	100.0
	Total	45	91.8	100.0	
Missing	System	4	8.2		
Total		49	100.0		

*Source: Field Survey, 2019.*

Table 3 shows that majority of the respondents were satisfied with their deployments/transfers as 84.4 per cent of them were satisfied. This shows that there is no deployment due to malice or certain other prejudices. This is encouraging, meaning that transfers/deployments were not instigated or done for punitive measures or malice.



**Table 4: Respondents rating of cordial relationship between officers and men of NSCDC**

	Rating	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cordial relationship	11	22.4	84.6	84.6
	Fairly cordial relationship	2	4.1	15.4	100.0
	Total	13	26.5	100.0	
Missing System		36	73.5		
Total		49	100.0		

Source: Field Survey, 2019.

Rating the level of cordial relationship between officers and men of the corps, data from Table 4 above show that their relationships are cordial; this is affirmed by 84.6 per cent of the respondents. This too is a very interesting development for a Para-military organisation where forcefulness and order permeates the system.

**Table 5: Respondents Rating of the Level of Job Satisfaction in NSCDC**

	Rating of job satisfaction	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very satisfied	19	38.8	41.3	41.3
	Satisfied	16	32.7	34.8	76.1
	Not satisfied	11	22.4	23.9	100.0
	Total	46	93.9	100.0	
Missing System		3	6.1		
Total		49	100.0		

Source: Field Survey, 2019.

Table 5 presents respondent's views on overall job satisfaction with their job. 41.3 per cent and 34.8 per cent respectively indicated that they are very satisfied and satisfied with their jobs. This is also noteworthy, given the nature of militarism and strict obedience to order involved in NSCDC as a paramilitary organisation. The study still found out that the personnel of NSCDC are generally satisfied with their jobs owing to good cordial relationships established between officers and men of the corps.

**Table 6: The regression result from E. View 7.0**

Dependent Variable: Effective service delivery				
Variable	Coefficient	Std. Error	t-statistic	Prob.
C	11.42745	0.307473	37.16566	0.0000
Official deployment	3.487468	0.566953	6.151247	0.0000
R-squared	0.541796	Mean independent variable		12.4531
Adjusted R-squared	0.527477	S.D independent variable		2.19129
S.E. of regression	1.506306	Akaike info criterion		3.71422
Sum square resid.	72.60666	Schwarz criterion		3.80400
Log Likelihood	61.14174	Hannan-Quinn Criterion		3.74484
F-statistic	37.83784	Durbin-Watson Stat.		1.889253
Prob. (F-statistic)	0.000001			

Source: Authors' Computation, 2019.



From the regression result, it can be deduced that 54 percent variation of effective service delivery is caused by official deployment in NSCDC as examined by the coefficient of determination ( $R^2$ ), while after taking into consideration the degree of freedom, the adjusted coefficient of determination with 52 percent explained that 52 percent of the variation of effective service delivery is still explained by official deployment in NSCDC. Hence, the result shows a good fit as the independent variable explains over 50 percent of the variation in a model. Therefore, to confirm the worth or credibility of the result, we examined the F-statistic value and confirm that the alternate hypothesis that the independent variable significantly explains that the dependent can be accepted given the F-statistical probability value (0.0000) which is significant at both 1 and 5 percent.

Table 7: Correlation statistics measuring relationship between Cordial Relationship and Job Satisfaction in NSCDC

		Correlations		
Kendall's tau_b	Cordial R/ship	Correlation Coefficient	1.000	.370**
		Sig. (2-tailed)	.	.001
		N	119	76
	Job Satisfaction	Correlation Coefficient	.370**	1.000
		Sig. (2-tailed)	.001	.
		N	76	76

\*\* Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' Computation, 2019.

The obtained Kendall's tau-b correlation coefficient from table 7 is +.370 which expresses a moderate and positive relationship between cordial relationship and job satisfaction in NSCDC; which is statistically significant at the 0.01 level (2-tailed). The study therefore accepts the research hypothesis  $H_1$ , that, cordial relationship and job satisfaction are significantly related.

#### Discussion on findings

The general impression that any observer might have on the NSCDC as a paramilitary organisation, would be that of hostility amongst the personnel of the corps owing to the nature of their operations and training. For an organisation that has a military cum armed trained squad personnel, it is expected that the operational atmosphere would always be tensed devoid of courtesies or cordiality of any kind but formal relationships amongst officers and men of the corps. This has become the trend in most sister security and paramilitary organisations in Nigeria.

There are always complaints on postings, deployments, transfers, promotions, etc. amongst officers and men which is usually said to be based on personal animosities, wickedness, maliciousness, and unfairness, either instigated by superior officers as punishments for disobedience or borne out of regional, ethnic and religious prejudices. Hence, the luster for effective cordial relationship is inherently not felt in such organisations. But to the dismay



of this researcher, the findings of the study have shown that a larger percentage of respondents have adduced to the fact that in the NSCDC Abuja, units and departmental postings are satisfactory, official deployments and transfers are also seen to be well-intentioned devoid of malice or any form of animosity.

Secondly, the study has established that good workplace cordial relationships exist among members of the corps. This has been proven by the majority of the respondents who stated that they are satisfied with the level of the cordial relationship that exists in the corps, symbolizing that there is a high level of trust, cooperation, and respect for one another which has made the working environment in the office in Abuja very conducive and friendly for them. Correspondingly, the cordial relationships among officers and men of the corps have added to higher productivity and job satisfaction has been enhanced. A comparatively large percentage of respondents in this study have attested to this fact. The findings on Tables 1, 2, and 3 of the study have all answered objective 1 which seeks to ascertain the level of cordial relationships that exist in NSCDC, while the findings on Table 4 has successfully answered objective 2 of the study which sought to find out the general level of job satisfaction among the NSCDC personnel in Abuja.

The above findings have been supported by Igbal (2015) who submitted that employees who work in supportive, cooperative, and energetic workplaces tend to be satisfied with their job. This implies that the level of support and cooperation created in the NSCDC has given personnel of the corps the much-needed tendency of appreciating their jobs, hence cordial relationships and job satisfaction has been enhanced in spite of the paramilitary nature of NSCDC.

The findings have also supported the two theories adopted for the study, the Human Relations theory and Herzberg two factor theory, which has the reduction of tensions and conflicts in the workplace by the entrenchment of human factors like cooperation among personnel to achieve job targets and responsibilities, cordialities in the workplace, advancements, job specifications, and clarity and conducive work environments all contributed to job satisfaction of the NSCDC personnel in Abuja.

## **5. Conclusion and Recommendations**

The study has been able to establish that good workplace cordial relationship exists in the NSCDC which has enhanced job satisfaction amongst officers and men of the organisation. This has been supported by higher percentages from the respondents.

The fact that good workplace cordial relationship amongst personnel of the NSCDC has been established, is a pointer to the fact that the personnel is happy with their job and that the organisation has created the much-needed atmosphere for an interpersonal relationship to exist in the organisation. The researcher, therefore, wishes to recommend that this spirit and tempo of good workplace cordial relationship be maintained or further enhanced. Secondly, the study has established that job satisfaction amongst officers and men of the



corps is no longer in doubt. This good development should also be maintained and enhanced accordingly.

### Reference

- Akiko, N. (2012). The Introduction of Employee Contributions to define contribution pension plan. *Nomura Journal of Capital Market*. Vol. 3(3)
- Anthony, K. (2013). Employer-Employee Relationship and Organisational Culture.
- Bashir, A et'al (2012). Standing by organisation: The impact of organisational identification and abusive supervision on followers perceived cohesion and tendency to gossip. *Article in Pacific Journal of Human Resources*. Vol. 118(3), 623-634
- Damachi, N.A. (2006). Industrial Relations – OUP, India. Oxford University Press.
- Federal Republic of Nigeria (2007) Civil Defence Amendment Act
- Gordon, J. & Hartman, R.L. (2009). Affinity-seeking strategies and open communication in peer workplace relationships. *Atlantic Journal of Communication*. Vol 17 (3), 115-125
- Iqbal, A. (2015). Organisational Climate and Employee Commitment. Vol. 3 1-11. Publish by Pakistan Hosiery Manufacturing Association, Pakistan.
- Janz, B.D. & Prasarnphanish (2003) Concept in Organisations Understanding the Antecedents of Effective Knowledge Management. The importance of a knowledge-centered culture. *Decision Sciences* Vol. 21(34) 351-384. University of Memphis: US.
- Maslow, A.H. (1943). Classes in the history of psychology. Originally published in psychology review. Vol. 50, 370-386. York University Toronto, Ontario.
- Mayo, E.G. (1946). The human Problem of an industrial civilization. 2<sup>nd</sup> Edition, Boston. Mass: Harvard University.
- Moye, M.J., Henkin, A.B & Egley, R.J. (2005). Teacher-Principal Relationship. Exploring linkages between empowerment and interpersonal trust. Massachusetts Avenue 7<sup>th</sup> Floor, Cambridge. *Journal of Educational Administration*, Vol 43 (3), 260-277
- Morrison, R. (2004). Information relationship in the workplace: Association with job satisfaction, organisational commitments and turn over intentions. Article in *Newzealand Journal of Psychology (NZJP)* Vol. 33(3)
- Nzelibe A. (1996). Elements of Government. Published by Africa-Link Books, Ibadan.
- Pemilu & Farnham (2005). The Impact of Cordial Industrial Relations on the Growth of an Organisation. Published by Management and Labour Studies. SAGE Journals Publishers.
- REA (2015). Evaluation of operation of REA. Publication metadata. Council Regulation (EC) No 58/2003.
- Purcell, J. (2014). Disengaging from engagement. Article in Human Resource Management. *University of Bath. Journal*. Vol. 24 (3)



- Robert, K. Merton (1938). Social Structure and Anomie. *American Sociological Review*. Vol. 3(5).
- Sahoo, R., & Sahoo, K.C. (2018). Drivers of Cordial Employee Relations: The study of a State owned public sector undertaking.
- Shantz, A. (2013). The role of employee engagement in the relationship between job design and tax performance, citizenship and deviant behaviors. Trinity College, Dublin. Article published in the *International Journal of Human Resource Management*. Vol. 24 (13)
- Tsai, Y. (2011). Relationship between Organisational Culture, Leadership Behavior and Job Satisfaction. *BMC Health Services Research II*. Article No. 98





EFFECT OF KNOWLEDGE SHARING ON ORGANISATIONAL  
PERFORMANCE: A STUDY OF KRESTA LAUREL COMPANY IN LAGOS  
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### Abstract

*One of the challenges of knowledge management is that of encouraging people to share tacit knowledge. In some organisations, sharing is helpful and normal while in some, it is otherwise. It is in view of this that this study investigated the effect of knowledge sharing on organisational performance in Kresta Laurel in Lagos State. This study adopted descriptive survey research design through the use of questionnaire. The population of the study comprised of 123 staff of the company, which was further reduced to 76 staff as the sample size through the use of a formula derived by Taro Yamane. Purposive sampling technique was used to select the staff. The data was analysed using Regression Analysis with the aid of the Statistical Package for Social Sciences (SPSS version 25.0) at 5% level of significance. Descriptive Statistics was also used to analyse the relevant data. Findings revealed that there is significant effect of knowledge sharing on organisational performance. The study recommended that organisations should encourage knowledge sharing among their staff so as to enhance its performance.*

**Keywords:** Knowledge, Knowledge Sharing, Management, Organisational Performance.

### 1. Introduction

Knowledge, when created and distributed all over the organisation, has the ability to contribute to the firm's value (Janus, 2016). Ineffectiveness in managing knowledge makes the knowledge immaterial and not useful for organisations (Mohamad&Abu, 2012). Companies that achieve significant growth in knowledge become more active contributors to the nation. Organisational performance is vital to the well-being of a business and knowledge is a crucial resource that needs to be well managed in order to achieve



company's organisational performance (Mohamad & Abu, 2012). Among various resources available to the company, knowledge is the most valuable company's resources because it embodies best practices, routines, Lessons learned, problem-solving methods and creative processes that are often difficult to replicate (Renzel, 2008). Most of the organisations that improved their business performance do not only depend on the successful deployment of tangible assets and natural resources but also on the effective management of knowledge (Lee & Sukoco, 2007). Fast growth of information leads to the importance of managing knowledge in organisations (Zuzana, 2007). Organisations should therefore recognise the value of knowledge and experience of its individual employees, they should capture, organise and store knowledge within an organisation and make it available for others in the organisation. Knowledge sharing needs face-to-face communication and collaboration with workgroup. One of the challenges of knowledge management is that of getting people to share their knowledge (Muhamad, Che & Rosmaini, 2010). In some organisations, sharing is caring and natural (Skyrme, 2008). And there are questions asked on why people do not share knowledge: People have pride in not having to seek advice from others and in waiting to discover new ways for themselves while some people do not realize how useful particular knowledge is to others. Some individuals may have knowledge used in one situation but unaware that other people at other times and places might face similar situations. If people share some of their experience, they use it out of context, mis-apply it and then blame each other or pass it off as their own without giving any acknowledgement or recognition to them as source.

Skyrme (2008) reveals that lack of time is the major reason given by employees in many organisations. It is not all information and knowledge that can be shared within community and society. In an organisation such as Kresta Laurel, there is top secret information which cannot be shared. This classified "Top Secret" information and knowledge which keep organisations have a high values. Only trusted individuals or people know the secret information and knowledge to protect organisations or countries (Muhamad, Che & Rosmaini, 2010). When this is done, it defeats the idea of knowledge sharing and those employees denied of such secret information may see themselves as being alienated from the organisation, hence may hamper the growth of the organisation and result in poor organisational performance.

The main objective of this study is to find out the effect of knowledge sharing on organisational Performance in Kresta Laurel Company in Lagos State.

## **2. Literature Review**

### *Concept of Knowledge Sharing (KS)*

Park and Im (2003) defined knowledge sharing as "the process of transferring knowledge from a person to another in organisations. It is a process to accumulate shared knowledge among members". Bock and Kim (2002) see knowledge sharing as a kind of social interaction among people. Knowledge, unlike information is locked in the human mind and



part of human identity. Frappaolo (2006) claimed that knowledge sharing is about “how people share and use what they know”. In addition, Tasmin and Woods (2008) asserted that knowledge sharing is a social system that supports collaboration and integration which is normally facilitated by technology. Dalkir (2005) also supported the notion that knowledge sharing is to be associated with “appropriate mix” of technological channels for optimizing knowledge exchanges. Creating and exchanging knowledge are intangible activities that can neither be supervised nor imposed. They happen only when people cooperate voluntarily. This exchange of knowledge can lead to the creation of new knowledge, which can be an important source of competitive advantage. Bock and Kim (2002) stated that Davenport (1997) argues that sharing knowledge is often unnatural. Davenport (1997) said that people will not share their knowledge as they think their knowledge is valuable and important. Also, Samieh and Wahba (2007) agreed that the knowledge sharing practice are motivated and executed mainly at the individual levels. Even in the absence of strong organisational norms of knowledge sharing, employees may tend to share knowledge according to their personal benefits and cost. At the end, knowledge sharing practices can help organisations becomes more profitable and undefeated.

Knowledge Sharing Practice at work nowadays, many CEOs and managers in organisations understand the importance of knowledge sharing among their employees and eager to introduce the knowledge management paradigm in their workplaces. Chaudhry (2005) reported that several studies have been conducted during five years to review knowledge management strategies and knowledge sharing practices in the local organisations. Singapore, for example, provides an interesting case study in this regard. Chaudhry (2005) states that Singapore is conservative in adhering to Asian cultural traditions and at the same time open to innovation and creativity. It is a diverse and multi-ethnic society that is eager to stick to meritocracy and system efficiency in its pursuits of innovation and creativity which are crucial to the success of knowledge management activities. Chaudhry (2005) also found that in Malaysia, knowledge sharing practices are not widely implemented. Only several government body and private sectors especially which have link with worldwide company embedding knowledge sharing. Besides, the private companies which embedding knowledge sharing own their innovation and creativity to become more profitable and knowledgeable. Chong (2003) found that knowledge sharing was taking place on informal basis through face-to-face communication and collaborative workgroups. His study reveals that knowledge is supported in this environment by a culture that encourages sharing of knowledge, learning from failures, and developing people’s skills. Rastogi (2000) emphasized that organisational culture required favourable social environment such as trust, shared values, and goodwill to facilitate knowledge sharing. This signifies the importance of trust in knowledge culture and knowledge sharing. Lim, Tang and Yang (2004) agreed that through face-to-face context, people that have knowledge sharing attitudes were getting more evident rather than electronic medium. Employees were found to be more willing to share knowledge with



increased rewards. “Embedding knowledge into everyday work process is time consuming and expensive” Snowden (2002) stated it’s impossible to measure whether someone is sharing their knowledge or not in organisations, but it is possible to measure if they comply with a process. Therefore, employees are not susceptible to directive control in respect of intangible assets such as knowledge. Norris, McQueen and Cutler (2003) supported that knowledge becomes tangible as digitised content, as context that can be digitally shared and through direct and indirect interactions. Knowledge can be created by asking a question and watching responses provoke through conversations, responses, and interactions among network participants.

#### *Why people do not share?*

Skyrme (2008) identified the following as the reasons why people do not share their knowledge in an organisation: Syndrome People have pride in not having to seek advice from others and in waiting to discover new ways for themselves; an individual may have knowledge used in one situation but unaware that other people at other times and places might face similar situations; if people share some of their experience, will they use it out of context, mis-apply it and then blame each other or pass it off as their own without giving any acknowledgement or recognition to them as source; lack of time is the major reason given by employees in many organisations. There is pressure on productivity on deadlines, and it’s general rule that the more knowledgeable they are, the more people waiting to collar for the next task; there is not all information and knowledge can be shared within community and society. In organisation, there are or maybe top secret information which cannot be shared. This classified “Top Secret” information and knowledge which organisations have high values. Only trusted individuals or people know the secret information and knowledge to protect organisations or country.

#### *Advantages of Knowledge Sharing Practice in Organisation*

The following are the advantages of knowledge sharing in organisational practice as given by Muhamad, Che, and Rosmaini (2010): Kim, Lee and Olson (2006) stated that embedding knowledge sharing practice can be regarded as a public good because people who do not pay or contribute to the organisation or community also can share knowledge. Multiple people also can access and share knowledge at the same time; knowledge sharing practices can make people in organisation innovative and creative to created things. Meetings, discussion and forum are the best platform to share the knowledge and idea among groups. The people in the groups can easily exchange and share knowledge to make their tasks work. It is generally understood that knowledge sharing is an antecedent to many more knowledge management activities. Tasmin and Woods (2008) evinced that knowledge sharing through knowledge management effort has been empirically shown to positively and strongly influence higher innovation activities among manufacturing firms in Malaysia. According to Tasmin and Woods (2008), the predictive constructs of knowledge management enabling practices were able to explain 99% of its variance and innovation activities were 52% of its variance. Most importantly, the influence strength of



KM on innovation was at a magnitude of 0.74. These facts show the significance and importance of knowledge sharing towards innovative activities; when knowledge sharing among people or employees in organisation becomes stronger, it shows that knowledge also becomes more powerful in organisation. Individual or person who shares their tacit knowledge through conversation becomes more innovative and creative in their work. Norris et al. (2003) agreed that much of this tacit knowledge exists and is communicated through conversations in community of practices or networks of practices. Such “know how”, “know who”, “know where” knowledge promises to be more important. As it is aptly said by an industry captain of Hewlett-Packard; one of advantages of embedding knowledge sharing practice in organisation is attitude. Kuo and Young (2008) stated that for knowledge sharing practices, attitude has been shown to be a critical factor because one’s knowledge about how to solve organisational problems could influence one’s trade value. Chowdury (2004) reported, in a case study at Petronas, the importance of the expertise sharing attitude with peers and people in workplaces. People also may consider sharing their knowledge in an organisation if they believe this will be personally important and valuable for them; culture change is never easy and takes time. But cultures can be changed. Takeuchi and Nonaka (2004) stated, in his KM milestone book, that “both IBM and Canon have successfully undergone a transformation and have proven themselves capable of changing as fast as the environment around them...” in those firms environment, effective knowledge sharing deals with cultural change of the people, process transformation, and technological management systems. According to Skyrme (2008), involvement from people or individual in organisation could be some of the best knowledge sharing cultures is where everybody believes their knowledge is respected, valued and used to inform decision. Knowledge sharing practice could make people and individual become valuable.

#### *Concept of Organisational Performance (OP)*

Performance is the end result of activities; it includes the actual outcomes of the strategic management process (Alrubaiee, & Jamhour, 2012). Likewise Ben, Louati, and Affes (2015) posited that the organisational performance is represented by the success in achieving its goals. Organisational performance constitutes all behaviours related to organisational objectives depending on the contribution levels of individuals to the organisation (Borman & Motowidlo, 1993). However, the organisational performance is the mirror that reflects the organisation’s ability in achieving high productivity provided it is combined with the customers’ satisfaction and having a well market share that can provide a suitable financial refund and do social and ethic responsibilities towards the environment where the organisation works and the society (Tubigi & Al shawi, 2015). Similarly, scholars considered organisational performance as the achieved results of the interaction between the activities of communication and information technology sector and its resources or the difference between the financial goals and the non-financial ones in a specific period of time (Rajneesh & Kaur, 2014). However, organisational existence will be



in danger, only if the performance includes non-financial scales, the background image of the performance will show up the thing which the financial indications fail to do (Zainol&Ayadurai, 2011). In consistent with this, Sink and Tuttle (1989) also realized that performance should not be treated only as a financial concept. Thus, it is suggested that particularly in the service sector, non-financial performance should receive serious consideration. Nofal, Surachman, and Djumahir, (2014) argued that relying only on the financial ratios in evaluating the performance gives incomplete image about the organisation. Therefore, this method in evaluation should be enhanced and supported by operational performance's scales to build measurement system for effective performance in the organisation such as market share, customer retain. To this end, Noruzy, Dalfard, Azhdari, Nazari-Shirkouhi, and Rezazadeh (2013) argued that if the manager cares of the total performance of the organisation, he will be able to create a balance between the operational and the financial interests. Traditionally, firm performance has been viewed and measured in accounting terms. An additional issue should be raised here; due to confidentiality concerns, it is often challenging to obtain actual accounting data from organisations unless they are publicly quoted companies. As a result, previous research studies looking into performance related issues used self-reported financial and non-financial performance measures (Alrubaiee, 2012). However, Tseng and Lee, (2014) pointed out, that some scholars have continually discussed the organisational performance measurement index. For example, Tippins and Sohi (2003) suggested profitability, rate of return on investment, customer retention, and sales growth rate as the organisational performance measurement indexes, while Lee and Choi (2003) suggested market share rate, comparisons of success with other companies, growth rate, profitability, and ability to innovate as the organisational performance measurement indexes.

Organisational performance describes how efficient the organisation is in its quest to achieve the goals that have been set. How well an organisation deploys its resources, human and material, determines how well set goals are accomplished (Richard, Devinney, Johnson, & Yip, 2008). They state that organisational performance consists of four major areas: financial performance, product/market performance, shareholder returns and non-financial performance. Financial performance relates to the measurement of profits, return on assets, return on investment, etc. that an organisation has achieved over a time period. Product/Market performance relates to sales, turnover, market share, etc. Shareholder returns measure the benefits accruable to providers of financial capital to the organisation. Non-financial performance refers to the measure of employee satisfaction and performance, customer service and satisfaction, quality/consistency of products and market share/growth/innovations. Employees contribute immensely to the good fortunes of organisations. These contributions have led to significant successes that organisations have recorded over the years (Collis & Montgomery, 1995).



### *Theoretical Review*

This study is anchored on knowledge management theory. The theory assumes that knowledge management is seen as the process of creating, sharing, using and managing the knowledge and information of an organisation. The main focus of knowledge management theory is basically getting some of the best practices of effectively implementing a knowledge management system and the benefits it brings to organisation as it improves the way employees create, share and find information (McInerney & Koenig, 2011).

### *Review of Empirical Literature on Knowledge Sharing and Organisational Performance*

Bojan, Slobodan, and Akmal (2015) in their journal titled “The Value of Knowledge Sharing”: Impact of Tacit and Explicit Knowledge Sharing on Team Performance of Scientists proposed that knowledge sharing has been tied to team performance in many instances, still in the context of scientific cooperation the investigation has not been attempted. Furthermore, the division of tacit and explicit knowledge sharing is required, as they are quite different in nature, and as they might not contribute to the team performance equally. The study, aimed to explore knowledge sharing between the project team members and to explain influence sharing of tacit and explicit knowledge have on team performance. In the attempt to achieve the goal, they analysed knowledge sharing between scientists, drawing lessons from government funded research projects.

Through the development of a framework an understanding of the relationships between sharing of tacit and explicit knowledge sharing and team performance, in research project teams, had been achieved. In addition, they provided a first analysis of the current state of knowledge sharing on research projects in Croatia. The outcomes of the study shed light on knowledge sharing behavior between researchers, therefore, contributing towards the successful implementation of knowledge sharing initiatives as part of research project knowledge management as well as organisational knowledge management initiatives.

Paavo, Heidi, Snejjina, and Kenneth (2015), in their article titled “Knowledge sharing, knowledge leaking and relative innovation performance”: An empirical study, posed that External knowledge sharing and knowledge leakage often pose a strategic dilemma when firms conduct innovation activities. In the study, they focus on the positive and negative effects of the phenomenon. In particular, they empirically examine the effects of a firm's external knowledge sharing on its relative innovation performance under the contingencies of accidental and intentional leakage of business-critical knowledge. The results was based on a survey of 150 Finnish technology-intensive firms which show that external knowledge sharing has a positive effect on innovation performance, but high levels of accidental and intentional knowledge leakage by a firms' employees negatively moderate this relationship. The results contribute to the understanding of the potentially positive and negative issues related to external knowledge sharing and knowledge leakage, which have thus far remained empirically under-researched.





Haixin, and Guiquan, (2018), in their article titled “Linking Transformational Leadership and Knowledge Sharing”: The Mediating Roles of Perceived Team Goal Commitment and Perceived Team Identification, theorize that transformational leadership can effectively facilitate the sharing of knowledge among followers, but most investigations of the underlying mechanisms were based on the social exchange perspective. Based on a sense giving theory perspective, the article attempts to uncover the mechanisms by which transformational leadership has its impact on employee knowledge sharing behavior by proposing two team-directed mediating mechanisms: perceived team goal commitment and perceived team identification. Results of multi-source and time-lagged data from 186 leader–follower pairs supported the proposed mediating effects. The results also showed transformational leadership facilitates knowledge sharing among employees by enhancing followers’ perceived team goal commitment and perceived team identification.

Rudawska (2020), in his paper titled “Knowledge Sharing and Creativity”: Individual and Organisational Perspective, found out that the flow of knowledge between employees contributes to the knowledge development which in turn influences individual and organisational creativity. However, knowledge sharing by employees is not a simplistic and homogeneous behaviour. Basing on the literature review in the area of intra-organisational knowledge sharing and creativity, he aims to explain the relation between giving knowledge and individual (giver) creativity and organisational creativity. The knowledge sharing is analysed from the knowledge giver perspective. He also distinguished two forms of knowledge giving; proactive and reactive that is situation depended. The conceptual article indicates that proactive and reactive knowledge sharing relates differently with creativity and that sharing knowledge with others is not always positive to the giver’s creativity, while it is influential for organisational creativity. The theoretical deliberations are summarized in nine propositions. They indicate that managers need to take into account the likelihood of individual creativity loss as a cost of reactive knowledge sharing; otherwise, the quality of sharing could be harmed by knowledge manipulation by the sharer, with a negative influence on organisational creativity.

Jacqueline, Ina, Gaule, Guinan, and Karim, (2020) in their study titled “Engineering Serendipity”: The Role of Cognitive Similarity in Knowledge Sharing and Knowledge Production, consider the implications of knowledge sharing on knowledge production. They theorize that the “cognitive similarity” between two individuals’ prior knowledge is systematically related to the effectiveness of knowledge sharing on the knowledge production process. To estimate relationships, they designed and executed a natural field experiment at a medical symposium, in which exogenous variation was introduced to provide some of the 15,817 scientist pairs with opportunities for serendipitous, face-to-face encounters. The data include direct observations of interaction patterns collected using sociometric badges, and detailed longitudinal data on the scientists’ publication records for six years following the symposium. They find both collaborative and competitive effects of cognitive similarity on knowledge production. Interacting scientists were more likely to





transfer new knowledge concepts to each other if they shared some similarities in research interests, but were less likely to cite and diffuse each other’s knowledge if they worked in the same field or discipline of study. The study therefore suggests that knowledge sharing may boost organisational knowledge production when potential partners share some prior knowledge overlap, but too much overlap may impede it.

**3. Methodology**

This study used cross-sectional descriptive survey research design because it involves an investigator to examine variables at one time only. It moreover involves the use of organised questionnaires that are proposed to acquire facts from the respondents (Shonubi, 2017). The population of this study includes 123 staff of Kresta Laurel Company’s Head Office in Lagos State, Nigeria. Basically, the company is made up of six departments namely; procurement /purchasing department with 15 staff, technical department with 40 staff, finance department with 13 staff, store keeping department with 22 staff, training department with 27 staff and digital marketing department with 6 staff.

The sample frame for this study was made up of all staff of Kresta Laurel Company, Lagos, Nigeria. For each department, the sampling size was determined using the Taro Yamane’s formula as shown below:

$$n = \frac{N}{1+N(e)^2} \dots\dots\dots 1$$

Where n = Sample size; N = Total population; e = the error of 5%

Table 1: The departmental distribution of sample size using Taro Yamane’s Formula:

Units/ Departments	Population	Yamane Formula $\frac{N}{1 + 0.025N}$	Sample size N
Procurement/Purchasing	15	15/(1+0.025(15))	11
Technical	40	40/(1+0.025(40))	20
Finance	13	13/(1+0.025(13))	10
Store Keeping	22	22/(1+0.025(22))	14
Training	27	27/(1+0.025(27))	16
Digital Marketing	6	6/(1+0.025(6))	5

Source: Field Survey, 2020.

Having derived the sample size, in each department, the purposive or judgmental and convenience sampling techniques was used to select respondents for managerial employees and non-managerial employees respectively. The purposive sampling technique will involve a predefined group in mind. This means that, people whose opinions are relevant to the study will be chosen for the study. The purposive sampling technique will be used for managerial employees because they had to meet a criterion of belonging to the predefined



group of top level managers. Again, the convenience sampling technique shall be for non-managerial employee.

To achieve the objective of this study, the information was gathered from the primary source of data which involved the use of questionnaire. The research variables are Knowledge Sharing as independent variable and Organisational Performance as dependent variable. The research data were analysed using regression for the variables in question, using SPSS package version 25. Regression analysis was used because the study attempts to know the effect of independent variable on the dependent variable. The hypothesis was tested at 5% level of significance ( $\alpha = 0.05$ )

#### 4. Results

Table 2: Descriptive Analysis on Knowledge Sharing

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
I see knowledge sharing to be strength	14 23.7%	41 69.5%	3 5.1%	1 1.7%	0 0%	59 100.0%
My interpersonal relationship among people has improved through knowledge sharing	17 28.8%	32 54.2%	4 6.8%	3 5.1%	3 5.1%	59 100.0%
Knowledge sharing has enhanced my learning capabilities	16 27.1%	38 64.4%	2 3.4%	2 3.4%	1 1.7%	59 100.0%
Competition for promotion has hindered knowledge sharing	21 35.6%	27 45.8%	7 11.8%	3 5.1%	1 1.7%	59 100.0%
The rules and regulations provided by the organisation has enhanced the share of knowledge	12 20.3%	45 76.3%	2 3.4%	0 0%	0 0%	59 100.0%
I share my mistakes to other employees so as to learn from them	9 15.3%	48 81.3%	1 1.7%	1 1.7%	0 0%	59 100.0%
I listen to the view of people before speaking	13 22%	28 47.5%	13 22%	3 5.1%	2 3.4%	59 100.0%
I am always encouraged to ask questions from my superiors	14 23.7%	39 66.1%	5 8.5%	1 1.7%	0 0%	59 100.0%
I am always respected despite my level of knowledge	24 40.7%	27 45.8%	8 13.5%	0 0%	0 0%	59 100.0%
I am encouraged to learn new skills from anyone in the organisation	24 40.7%	32 54.2%	2 3.4%	1 1.7%	0 0%	59 100.0%

Source: Researchers' Field Survey Report, 2020



Table 2 showed the descriptive analysis of respondents' responses as regards knowledge sharing. By adding up responses under strongly agree, agree and Undecided, 58(98.3%) of the respondents agreed and are undecided that they can see knowledge sharing to be strength., 53(89.8%) of the respondents agreed and are undecided that their interpersonal relationship among people has improved through knowledge sharing., 56(94.9%) of the respondents agreed and are undecided that knowledge sharing has enhanced their learning capabilities., 55(93.2%) of the respondents agreed and are undecided that competition for promotion has hindered knowledge sharing., 59(100%) of the respondents agreed and are undecided that the rules and regulations provided by the organisation has enhanced the share of knowledge., 58(98.3%) of the respondents agreed and are undecided that they

**Table 3: Descriptive Analysis on Organisational Performance**

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Organisational performance can be well understood if learnt	24 40.7%	34 57.6%	1 1.7%	0 0%	0 0%	59 100.0%
Perceived quality of products and services are relative to competitors	21 35.6%	38 64.4%	0 0%	0 0%	0 0%	59 100.0%
Production cost are relative to competitors	18 30.5%	40 67.8%	1 1.7%	0 0%	0 0%	59 100.0%
Market share are relative to competitors	15 25.4%	39 66.1%	4 6.8%	1 1.7%	0 0%	59 100.0%
Performance is relative to competitors	12 20.3%	30 50.8%	13 22.0%	3 5.1%	1 1.7%	59 100.0%
Organisational performance is relative to industry average	14 23.7%	38 64.4%	5 8.5%	1 1.7%	1 1.7%	59 100.0%
I enjoy my time in the office	25 42.4%	32 54.2%	2 3.4%	0 0%	0 0%	59 100.0%
I receive bonus and commission based on my performance	27 45.8%	30 50.8%	1 1.7%	1 1.7%	0 0%	59 100.0%
Career development is encouraged by the HR	24 40.7%	30 50.8%	5 8.5%	0 0%	0 0%	59 100.0%
Division of work and team work improves organisational performance	15 25.4%	40 67.8%	4 6.8%	0 0%	0 0%	59 100.0%

Source: Researchers' Field Survey Report, 2020

share their mistakes to other employees so as to learn from them., 54(91.5%) of the respondents agreed and are undecided that they listen to the view of people before speaking., 58(98.3%) of the respondents agreed and are undecided that they are always encouraged to ask questions from their superiors., 59(100%) of the respondents agreed and are undecided that they are always respected despite their level of knowledge., and lastly,



58(98.3%) of the respondents agreed and are undecided that they are encouraged to learn new skills from anyone in the organisation. The result demonstrates that knowledge sharing has a significant effect on the organisational performance of Kresta Laurel Company in Lagos state.

Table 3 shows the descriptive analysis of respondents' responses as regards organisational performance. By adding up responses under strongly agree, agree and Undecided, 59(100%) of the respondents agreed and are undecided that organisational performance can be well understood if learnt., 59(100%) of the respondents agreed and are undecided that perceived quality of products and services are relative to competitors., 59(100%) of the respondents agreed and are undecided that production cost are relative to competitors., 58(98.3%) of the respondents agreed and are undecided that market share are relative to competitors., 55(93.2%) of the respondents agreed and are undecided that performance is relative to competitors., 57(96.6%) of the respondents agreed and are undecided that organisational performance is relative to industry average., 59(100%) of the respondents agreed and are undecided that they enjoy their time in the office., 58(98.3%) of the respondents agreed and are undecided that they receive bonus and commission based on my performance., 59(100%) of the respondents agreed and are undecided that career development is encouraged by the HR., and lastly, 59(100%) of the respondents agreed and are undecided that division of work and team work improves organisational performance.

Table 4: Analysis of variance

		ANOVA <sup>a</sup>				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.143	10	.014	.321	.000 <sup>b</sup>
	Residual	2.137	48	.045		
	Total	2.280	58			

Source: Researcher's Field Survey Report, 2020.

Table 5: Regression Co-efficients

		Coefficients <sup>a</sup>				
		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	23.921	0.602		39.758	0.000
	Knowledge Sharing	0.190	0.026	0.250	7.164	0.000

a. Dependent Variable: Organisational Performance

Source: Researcher's Field Survey Report, 2020



The result on table 4 showed that the F statistic = .321 and was significant at  $p < 0.05$  which revealed that the model was significant in explaining the effect of knowledge sharing on organisational performance in Kresta Laurel Company in Lagos State. This finding is supported by a positive and significant unstandardised B coefficient in table 5 that knowledge sharing [B= 0.190,  $t = 39.758$ ,  $p < 0.05$ ]. Therefore, the null hypothesis which states that knowledge sharing will not have any significant effect on organisational performance in Kresta Laurel Company in Lagos State is hereby rejected. The regression model used to explain the variation in organisational performance due to effect of knowledge sharing in Kresta Laurel Company in Lagos state can be stated as follows:

#### *Discussion of findings*

The regression equation indicates that the parameter estimate in which the constant is 23.921 implies that if knowledge sharing is zero, organisational performance would be 23.921. The coefficient of knowledge sharing was 0.190 and indicates that a 1-unit increase in knowledge sharing was associated with a 0.190 unit increase in organisational performance of Kresta Laurel. This implies that an increase in knowledge sharing will subsequently increase the organisational performance of Kresta Laurel Company. The result of hypothesis demonstrated that knowledge sharing had a significant effect on organisational performance in Kresta Laurel Company in Lagos State.

#### **5. Conclusion and Recommendation**

Though, the main focus of knowledge management theory is basically getting some of the best practices of effectively implementing a knowledge management system and the benefits it brings to organisation as it improves the way employees create, share and find information (McInerney & Koenig, 2011), though the theory did not show its effect on organisational performance but the finding of this study shows that knowledge sharing has significant effect on organisational performance. The study, therefore recommends that organisations should encourage the practice of knowledge sharing so as to enhance organisational performance.

#### *Limitations and Future Research*

This study had encountered some limitations that should be addressed by future studies. Therefore, future studies should extend the study to other sectors such as educational, manufacturing, service, financial, to mention few. Future studies should also extend the geographical scope beyond Lagos State and possibly engage in comparative studies of the subject matter in different sectors.

#### **References**

- Alrubaiee, A. S., & Jamhour, L. M. (2012). Effect of Core Competence on Competitive Advantage and Organisational Performance. *International Journal of Business and Management*, 7, 192-204.



- Bock, G. W., & Kim, Y. G., (2002). "Breaking the Myths of Rewards": An Exploratory Study of Attitudes about Knowledge Sharing", *Information Resources Management Journal*, 15(2), 14-21.
- Bojan, O., Slobodan, O., & Akmal, H. (2015). "The Value of Knowledge Sharing": Impact of Tacit and Explicit Knowledge Sharing on Team Performance of Scientists.
- Chaudhry, A. S. (2005). "Knowledge Sharing Practices in Asian Institutions": A Multi-Cultural Perspective from Singapore. World Library and Information Congress: 17th IFLA General Conference and Council. Aug. 14th – 18th.
- Janus, S. S. (2016). *Becoming a knowledge sharing organisation, A handbook for scaling up solutions through knowledge capturing and sharing*, Washington, The World Bank Publication.
- Chowdury, N. (2004). "People's perception on various KM issues": Case Study with A Malaysian Oil Company. Gombak, Malaysia: IIUM.
- Collis, D., & Montgomery A. M. (1995). "Competing on Resources: Strategy in the 1990s," *Harvard Business Review*, 73,118-128.  
Comment: Place of publication.
- Dalkir, K. (2005). *Knowledge Management in Theory and Practice* (3<sup>rd</sup> ed.), Duchess street, London, The MIT Press.
- Davenport, T. H. (1997). "Saving its Soul": Human Centered Information Management. *Harvard Business Review*, 72 (2), 119-131.
- Deng-Neng, C., Ting-Peng, L., & Binshan, L. (2010). An Ecological Model for Organisational Knowledge Management, *Journal of Computer Information Systems*, 50 (3), 11-22.
- McInerney, C. R. & Koenig, M. E. D. (2011). *Knowledge Management in Organisations: Theoretical Foundations and Practice*, Chapel Hill, Morgan & Claypool Publishers series.
- Haixin, L., & Guiquan, L. (2018). "Linking Transformational Leadership and Knowledge Sharing": The Mediating Roles of Perceived Team Goal Commitment and Perceived Team Identification, *Frontiers in Psychology*, 9,1331, published online 2018 July 31. doi.10.3389/fpsy.g.2018.01331.
- Jacqueline, N. L., Ina, G. P., Gaule, E. C., Guinan, & Karim, R. L. (2020). "Engineering Serendipity": The Role of Cognitive Similarity in Knowledge Sharing and Knowledge Production, *Harvard Business School*, Working paper 20-058, 1-49.
- Kim, J., Lee, S. M., & Olson, D. L. (2006). Knowledge Sharing: Effects of Cooperative Type and Reciprocity Level, *International Journal of Knowledge Management*, 2(4), 1-16.
- Kuo, F. Y., & Young, M. L. (2008). "Predicting Knowledge Sharing Practices through Intention": A Test of Competing Models, *Computer in Human Behavior*. 24, 2697-2722.



- Lee & Sukoco, (2007). "The Effects of Entrepreneurial Orientation and Knowledge Management Capability on Organisational Effectiveness in Taiwan": The Moderating Role of Social Capital, *International Journal of Management*, 24 (3), (2007).
- Mohamad, N. Y. & Abu, H. A. B, (2012). "Knowledge management and growth performance in construction companies": a framework, *Social and Behavioral Sciences*, 62, 128-134.
- Muhamad, S., Che R., & Rosmaini T. (2010). "High-speed knowledge management: integrating operations theory and knowledge management for rapid results", *Journal of Knowledge Management*, 5, (4), 322-328.
- Norris, D., McQueen, J. M., & Cutler, A. (2003). Perceptual learning in speech, *Cognitive Psychology*, 47, 204-238.
- Paavo, R., Heidi, O., Snejjina, M., & Kenneth, H., (2015). Knowledge sharing, knowledge leaking and relative innovation performance: An empirical study, *Technovation: The International Journal of Technological Innovation, Entrepreneurship & Technology Management*, 35, 22-31.
- Park, H. S., & Im, B. C. (2003). "A study on the Knowledge Sharing Behavior of Local Public Servants in Korea". [Internet] <http://www.kapa21.or.kr/down/2003>.
- Rastogi, P. N. (2000). Knowledge management and intellectual capital- The new virtuous Reality of competitiveness, *Human Systems Management*, 19 (1), 39-49.
- Renzel, B. (2008). Trust in management and knowledge sharing: the mediating effects of fear and knowledge documentation, *Omega*, 36(2), 206-222.
- Rudawska, A. (2020). "Knowledge Sharing and Creativity": Individual and Organisational Perspective. In: Zakrzewska-Bielawska A., Staniec, I. (eds) Contemporary Challenges in Cooperation and Competition in the Age of Industry 4.0, Springer Proceedings in Business and Economics, Springer, Cham.
- Samieh, H. M., & Wahba, K. (2007). Knowledge Sharing Behavior from Game Theory and Socio-Psychology Perspectives. In: Proceedings of the 40<sup>th</sup> Annual Hawaii International Conference on Systems Sciences.
- Shonubi, A. O. (2017). The queuing analysis of system factors and market performance of ATM service in selected deposit money banks in Lagos State. Unpublished PHD Thesis. Babcock University Business School.
- Sink, D. S., & Tuttle, T. C. (1989), Planning and Measurement in Your Organisation of the Future, Norcross, GA, IE Press.
- Skyrme, D. J. (2008). "The 3Cs of Knowledge Sharing": Culture, Co-opetition and Commitment. (64). 1-6.
- Snowden, D. (2002). "Complex Acts of Knowing; Paradox and Descriptive Self-awareness", *Journal of Knowledge Management*, 6(2), 1-14.
- Takeuchi, H., & Nonaka, I. (2004). Hitotsubashi on Knowledge Management. Singapore: John Wiley & Sons.



- Tasmin, R., & Woods, P. (2008). Knowledge Management Practices and Innovation Activities among Large Manufacturers in Peninsular Malaysia. PhD. Thesis. Multimedia University, Cyberjaya, Malaysia.
- Tippins, M., & Sohi, R. (2003). "IT Competency and Firm Performance": Is Organisational Learning a Missing Link? *Strategic Management Journal*, 24(1), 745–761.
- Tseng S., & Lee S. (2014), "The effect of knowledge management capability and dynamic capability on organisational performance", *Journal of Enterprise Information Management*, 27 (2), 158-179.
- Zuzana P. (2007). "Knowledge Management and Organisational Performance", *Transformation of Paradigm in Management of Organisations in the context of Industry*, 4, 1045-1288.





**HUMAN RESOURCE ACCOUNTING DISCLOSURES AND FINANCIAL PERFORMANCE: EMPIRICAL EVIDENCE FROM MANUFACTURING COMPANIES IN NIGERIA**

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**Abstract**

*Human Resource Accounting can be viewed as a measurement process that recognises the resources of an organisation as an intangible asset whose cost and value are included in the financial statement of the organisation. The study was carried out with an objective of assessing the effect of Human Resources Accounting Disclosures on Financial Performance of Manufacturing Companies in Nigeria with the use of secondary data, obtained from the published annual reports of five (5) purposively identified manufacturing companies from 2015-2019. The study employed the multiple regression analysis (MRA) and findings showed that both the HR Training & Development Cost (HRTDC) and HR Remuneration Cost (HRRC) jointly and individually have noticeable effect on the financial performance of manufacturing companies in the country, Nigeria. The study also found that financial performance is dependent upon human resource accounting. HR Training and Development Cost and Remuneration Cost have significant contributions to the financial ability of a firm. The study, therefore, concluded that financial performance is dependent upon some individual performance that makes up the HRA disclosure such as staff rebuilding and retraining for development and HR remuneration. Finally, the study recommends that companies should expend more on the need to develop and train staff and also ensure that there are good staff remuneration and a low rate of employee turnover to avoid wastage of knowledgeable investment. Also, the accounting bodies should ensure a guideline that regulates the process of HR reporting in organisations.*

**Keywords:** Human Resource, Human Resource Accounting, Financial Performance, HR Training & Development Cost, HR Remuneration Cost



## **1. Introduction**

In the recent global market, organisations are composed of competitors, regardless of the industry. To establish a competitive advantage, it is significant that the firm truly depends on its workforce as a weapon in the competitive market. Companies seek to maximize their workforce through comprehensive training and rebuilding of their manpower (labour) programmes, not only to achieve organisation goals, but also, most importantly, for long-term survival and sustainability of the organisation (Marimuthu, Arokiasamy & Ismail, 2009). Amahalu, Agbionu, and Obi (2017) postulate that "human resource (HR) means a group of employees who make up the workforce of an organisation or a business entity". Human resources are the strength, talents, and knowledge of people, which potentially can be applied to the production of goods or rendering services.

The importance of human resource accounting is to create a model valuation for human resources and make sure that the essence of the human resource that drives the organisation for better performance is well represented and stated in firms' financial statements as intangible assets (Adebawolo, Enyi, & Adebawo, 2015). The development of accounting for human resource is initiated from the growing needs of the importance of human resources in the management of an organisation. In the late 1950s, human resource was regarded as a human asset by Rensis Likert, but it was later replaced by scholars from 'asset' to 'resource' (Asamu, Olawale, & Oluyemi, 2020).

The Financial Performance means the evaluation of the profitability and financial strength of any organisation. Financial performance is an action used to generate higher sales, profitability, and value of a business entity to the shareholders (of the business) through managing the expenses, equity, revenue and both current and non-current assets. Its main purpose is to provide complete information to the shareholder and stakeholders through the financial statement to encourage them to make decisions (Naz & Naqvi, 2016).

A study was conducted recently by Asamu, Olawale, and Oluyemi (2020) on the disclosure of human resource assets of manufacturing companies quoted in the Nigerian Stock Exchange (NSE). The study concluded that adequate reward has a significant effect on operational performance and financial leverage. Ijeoma and Aronu (2013) examined the effect of HRA on financial statements among Nigerian banks. Kruskalwallies test was used to analyse the collected data from the financial statement and they concluded that non-application of HRA measures had a negative effect on the future investment of the bank. Every amount of money spent on the in-service development and training of employees was treated as expense. Ofurum and Adeola (2018) carried out a study on nine (9) quoted companies of the Nigerian Stock Exchange for 5 years, using the ordinary least square and the Product Moment Correlation Coefficient of Pearson and found that there was no correlation between HRA and profitability of the listed companies.



Regardless of the various studies, the gap now is that most researchers have not been able to relate effectively the nexus that exists between the financial performance (strength) and the human resource accounting in the manufacturing companies in Nigeria.

Accounting for human resources is very necessary for the manufacturing companies since the majority of their workers are directly involved in the production of the major products and services of the companies. The selected companies treated human resources as an expenditure instead of assets in their statement of financial position. The major lacuna is that accounting for human resources is that companies' workforce are the most valuable assets in the organisation because the organisational performance or growth depends on the strength of employees. Therefore, some organisations invested in human resource one way or the other. The investments made by these firms in development (of human capital) are not reflected in their statement of financial position as assets, but reflected as liabilities in their statement of comprehensive income (Micah, Ofurun & Ihendinihu, 2012). Although numerous studies have been done on accounting of human resource in advanced countries, there is a gap in the literature in developing countries like Nigeria. Many of the Nigerian firms do not follow the accounting of human resources in their balance sheet.

The specific objective of this study is to assess the effects of human resources accounting disclosures on the financial performance of manufacturing companies in Nigeria. Specifically, the study aims to investigate the effects of HR training and development cost on financial performance of manufacturing companies in Nigeria; and to assess the influence of human resource remuneration cost on the financial performance of manufacturing companies in Nigeria.

The first hypothesis stated that human resource training and development cost has no significant effect on the financial performance of manufacturing companies in Nigeria. Also, the second hypothesis stated that human resource remuneration cost has no significant effect on the financial performance of manufacturing companies in Nigeria.

## **2. Literature Review**

### *Theoretical Review*

Transactional Cost Theory and Resourced Based Theory were adopted for the study.

*Transaction cost theory* was propounded by Coase (1937) and later developed by Oliver Williamson in the 1970s. According to Williamson (1979) this theory declares that, "business enterprises choose governance structures that economize transaction cost associated with establishing, evaluating, monitoring, and enforcing agreed-upon exchanges". In predicting the nature of governance structure, an enterprise will employ two behavioural predictions, namely bounded rationality and opportunism (seeking self-interest with guile). It means that the main problem that is to be solved by organisations is how to plan structures for governance, which take advantage of bonded rationality while protecting opportunism. To proffer a solution to this problem, both the explicit and implicit contracts



are created, closely monitored, seriously enforced, and regularly revised. For example, organisations that require firm-specific knowledge and skills are assumed to establish internal labour markets that join self-interested and bounded rational members of staff to the organisation, while companies that do not need these mentioned skills can gain efficiencies by competing for self-interested and bounded rational talent in an external labour market (Williamson, 1981). Contextual factors, in turn, to some extent, determine if the types and amounts of skills and knowledge a firm needs are likely to be available in the external labour market, the costs of getting them from the external market, the organisation's capability for developing them internally, and the costs of doing so.

*Resource-Based view (RBV)* contends that organisations have resources, a subset of which empowers them to accomplish competitive advantage, and a subset of those that lead to prevalent long-term performance (Barney, 1988). Resources that are important and uncommon can prompt the production of competitive advantage. That advantage can be maintained for longer periods (of time) to the extent that the company can safeguard against resource imitation, substitution or, probably, transfer. In general, empirical studies using the theory mentioned above have strongly backed the resource-based view (Barney, 1988).

Resources which are valuable, but scarce, can lead to the establishment of a competitive advantage. The advantage can be for a long period of time sustained to an extent that the firm can protect itself against the common resource imitation, transfer, or substitution". The theory confirms that firms' (competitive) advantage is retained by the institutional valuable resources, and capabilities, that are not common and cannot be replaced. RBV was built into a coherent theory by Wernerfelt (1984) as cited by Odhong, Were and Omolo (2014). Odhong et al (2014) also believe that firms' competitive advantage can be protected through the knowledge and skills development. The theory considers human capital as a resource that cannot be replaced or replicated. And this gives a firm a competitive advantage over other firms.

#### *Empirical Literature*

Inua and Oziegbe (2018) comment on the effect of human resource accounting on the performance of selected Nigerian banks. The study adopted an ex-post-facto research design and regression analysis was used to ascertain the effect of HRA attributes such as staff cost, staff strength, director remuneration, and firm size on financial performance. The findings revealed that direct remuneration had no significant relationship with the firm's financial performance. There is a significant effect on staff cost, staff strength, and firm size on the financial strength of the company.

Ofurum and Adeola (2018) evaluated the nexus between HRA and the profitability of selected Nigerian firms. Secondary data were adopted from the nine (9) service firms quoted on the Nigeria Stock Exchange (NSE) from 2011-2015. The data collected were analysed using ordinary least square (OLS) and the Product moment correlation coefficient



of Pearson. The findings revealed that there isn't any essential relationship between Human Resource Accounting & the profitability of the quoted firm. The study recommended that Staff should be well compensated in terms of reward and remuneration to bring out the best in them, management should make retirement benefits attractive to attract the best brain to their respective firms and establishment and that should be a well-coordinated program for staff development if the firm's profitability and performance are desired to increase positively.

The study conducted by Onyinyechi and Ihendinihu (2017) looked into accounting for human resource and the financial strength of firms in Nigerian. The study was aimed at determining the extent to which human resources influence the profit of firms after tax, total revenue, and the (net) asset. The hypotheses formulated were evaluated at a 5 percent level of essence using the Multiple Regression Analysis and the result showed that personnel benefit-cost has an important and positive effect on the profit after tax, while there is an undesirable impact on Net Asset. The research, therefore, finalizes that human resources contributes to the financial growth of companies and the contributions cannot be overemphasized. Firms should have a culture of training, developing, and encouraging the employees to put in their best towards financial growth of their companies. Providing them with infrastructures and a conducive working environment could reduce the rate of job turnover being experienced among firms.

Ilaboya (2013) explores the extent that large and top companies have adopted socially responsible reporting practices with a focus on human resource reporting within corporate annual reports. The results found that human resource disclosures lack overall consistency and comparability. Indicators of quantities are stated by few companies in the sample, with more concerns clear with a lack of attention paid to disclosure relating to equal and clear opportunities, work-life balance, and integration of disadvantaged groups.

Adebawajo (2015) studied Human Resources Accounting and corporate performance. The study examined the result of accounting of human resources on the performance of the business in Nigeria. The study adopted an empirical Ex-post factor research design, on a sample of 18 listed Banks in the Nigeria capital market. The study employed primary data with the aid of a well-constructed questionnaire designed to collect relevant information from the respondents on six steps Likert Scale and validated through peer review with Cronbach Alpha Coefficient of 0.807 and 0.870 for human resources and organisation performance respectively. The hypotheses were tested using a simple regression model and the result entails that human resources accounting significantly affect the bank's performance and also human capital-related information is relevant to the market value of the sampled banks in Nigeria.

Abiola and Adisa (2020) examined the influence of human resources accounting practices on managerial decision making in Nigeria. 16 quoted companies in the Nigerian financial sectors were used. The study found that there is a significant impact on managerial decisions in the organisation through the accounting of human resource.



### 3. Methodology

A cross-sectional survey was adopted for the study which involves a time series survey of existing data (Secondary data). Time series annual data was adopted ranging from 2015-2019 with sample sizes of 5 companies which are Cadbury Nigeria PLC, Dangote Sugar Plc., PZ Cussons, Unilever Nigeria PLC, and Nestle Nigeria PLC. A purposeful sampling method was used for selecting these sampled companies, reason being the availability of complete data obtained from the yearly report of the sampled companies for the period under consideration. Multiple regression was used to analysis the formulated hypotheses.

#### *Model Specification*

To analyse the influence of disclosures of human resource accounting on financial performance from manufacturing firms in Nigeria, the study used the ordinary least square (OLS) in the form of Multiple Linear Regressions to establish the relationship between Financial Performance(the Dependent Variable) and Human Resource Training& Development Costs HRT&D and Human Resource Remuneration Cost HRRC (the Independent Variables). The regression model was estimated through the use of Statistical Package for Social Sciences (SPSS).

$$FP = \alpha + \beta_1 HRTD + \beta_2 HRRC + \mu$$

Where,

FP = Financial Performance (Measured by profitability)

$\alpha$  = Intercept of the regression line

$\mu$  =Error or stochastic term

$\beta$  = Coefficient

HRTDC = Human Resource Training and development

HRRC = Human Resource Remuneration Cost

Table 1: Definitions and Measurements of the Study Variables

Code	Definition	Type	Measurement	Authors/Studies
FP	Return on Assets (ROA)	Dependent Variable (Financial performance measured by profitability)	Profit Before Taxes/Total Assets	It is a measure of ROA. The higher the ratio, the better the performance and assets utilisation of the companies. This is in line with the research works of Enofe, Mgbame, Sunday &Ovie, (2013)
TD	Human resource training & development costs	Independent Variable	Personnel expenses (training cost)	This is the total amount spent on training and development of manpower. This is in line with Syed 2009.
RC	Human resource remuneration cost	Independent Variable	Personal expenses (Salaries, wages, and allowances)	Remuneration is to total compensation received by the employees which include salaries, wages, and allowance. This is in line with Syed 2009.



*Decision Rule*

The acceptance/rejection criterion was that, if the p-value is greater than the alpha value of 0.05, we fail to reject the null hypothesis ( $H_0$ ) and accept the alternate hypothesis ( $H_1$ ).

**4. Results**

*Descriptive Statistics*

The descriptive analysis employed in this study is the summary of the statistics table. This includes the minimum, maximum, mean, and standard deviation of the distribution.

Table 2 Descriptive Statistics of the variables

	N	Minimum	Maximum	Mean	Std. Deviation
Training and Development Cost	5	1187874	1421360	1275815.00	94862.354
Remuneration Cost	5	9662142	12536952	11357738.60	1151930.196
Return on Asset	5	7924968	45557630	30790226.20	15399086.577

Source: Researchers' computation (2020).

Table 2 shows the descriptive statistics of the variables. The result revealed that HR Training and Development Cost range from a minimum of 1187874 to a maximum of 1421360 with a standard deviation of 94862.354 and a mean of 1275815.00. HR Remuneration Cost ranges from a minimum of 9662142 to 12536952 maximum with the mean of 11357738.60 and a standard deviation of 1151930.196. Return on Asset (ROA) was on the average of 30790226.20 with the 15399086.577 standard deviations. It ranges from a minimum of 7924968 to a maximum of 45557630.

*Multi-Collinearity Test*

This refers to the presence of high correlations between independent variables. This assisted in assessing the strength and the direction of the relationship between the dependent and independent variables.

Table 3: Multi-collinearity Test

Variables	TV	VIF
HR Training and Development Cost	0.714	1.400
HR Remuneration Cost	0.623	1.107

Source: Authors' Computation, 2020

Table 3 revealed the Multi-collinearity test that was tested through the use of the variance inflation factor (VIF). The results show that the study is free from the multi-collinearity problem because the Tolerance Value (TV) is  $< 1$  and Variable Inflation Factors (VIF) is  $>$  than 10. The result is in agreement with the assumption of the classical regression model which states that there should not be multi-collinearity among the explanatory variables included in the model.





Table 4: Multiple Regression

Model 1	R = 0.986	R <sup>2</sup> = 0.975	Adj.R <sup>2</sup> = 0.972		
	Sum of square	Df	Mean square	F	Sig.
Regression	441.860	1	147.287	20.831	0.000 <sup>b</sup>
Residual	848.463	4	7.071		
Total	1290.323	5			
Variable	Unstandardised coefficient (β)	Std. error	Standardised coefficient (β)	T	Sig.
Constant	7.737	1.042		7.427	0.844
HRTDC	.513	.058	.145	1.758	.000
HRRC	.145	.318	.310	1.324	.004

Note: X<sub>1</sub>= HR Training and Development Cost; X<sub>2</sub>= HR Remuneration Cost; Dependent variable: Profitability

Source: Researchers' computation (2020).

Table 4 shows that Human Resource Training and Development Cost (HRTDC) and Human Resource Remuneration Cost (HRRC), were significantly joint predictors of profitability ( $F_{(1, 4)} = 20.831$ ;  $R^2 = 0.975$ ). The predictor variables jointly contribute 97.5% to profitability, while the remaining 2.5% could be due to the effect of extraneous variables. This implies that human resource accounting has a positive and significant relationship with the manufacturing firms' profit. Furthermore, HRTDC ( $\beta = 0.145$ ;  $t = 1.758$ ;  $P < .05$ ), and HRRC ( $\beta = 0.310$ ;  $t = 1.324$ ;  $P < .05$ ) were independently related to manufacturing firms' profit at 5% level respectively. This implies that HR Training & Development Cost and HR Remuneration Cost independently relate to the financial performance of manufacturing companies in Nigeria. This was supported by Khan, Khanand, and Khan (2011) which examines the impact of the investment of HR training and development on performance and found that there is a positive and significant impact of HR training and development on performance.

Finally, from the second hypothesis, the findings revealed that HR remuneration cost has a significant and positive relationship with the financial performance of manufacturing companies in Nigeria. This was supported by Adebawajo (2015), who concluded that salaries, wages, allowance, and all forms of remuneration motivate employees and increase their performance.

The theoretical implications of this study involve understanding the various ways of success in an organisation where some resources may be omitted or added to the approach to enhance effectiveness and efficiency. Moreover, it will be vital to know whether the proposed framework differs in organisations of different contexts. The managerial implication of the study is that it will be interesting to know how the findings of this study will help the organisation to perform better. It would be important to find out whether this framework will be beneficial for policymakers and the stakeholder's community or not.





## 5. Conclusion and Recommendation

Based on the findings of the study it was observed that HR Training & Development Cost and Remuneration Cost have a significant effect on the financial performance of a firm. It was discovered that HR Training and Development, and staff remuneration cost will inspire the employees to give their best to the company which will boost the performance of the company financially. It is therefore concluded that financial performance is dependent upon the individual performance that makes up the HRA disclosure such as staff rebuilding and development and HR remuneration. Further studies should focus on other dimensions of HRA like staff salary, level of increment in staff, and staff retirement on the financial strength of the different industries.

In line with the outcomes of this study, the following recommendations are made from an HR perspective and an Accounting perspective. From the view of human resources practitioners, the company should expend more on staff and development and also ensure that there are good staff remuneration and a low rate of employee turnover to avoid wastage of knowledgeable investment. From the accounting view, the accounting bodies should ensure that there is a guideline for managing the process of HR reporting in Nigeria. The cost of Human resources should be reported in assets accounts rather than as expenses.

## References

- Abiola, J. O., & Adisa, R. A. (2020) COVID-19: influence of human resource accounting practices on managerial decision-making. *Archives of Business Research*, 8(5), 8-18
- Adebawojo, O. A, Enyi, P. E & Adebawo O. O (2015), Human asset accounting and corporate performance. *American International Journal of Contemporary Research*, 5(1), 1-15.
- Adebawojo, O. A. (2015). Human asset accounting and corporate performance. *American International Journal of Contemporary Research*, 5(1), 145-158.
- Amahalu, N.N., Agbionu, U.C., & Obi, C.J. (2017). Effect of human resource accounting on the profitability of selected quoted telecommunication firms in Nigeria. *Contemporary issues in business management*, 1(5) 410-443
- Asamu, O.L., Olawale, B.M., Oluymi, A.A. (2020). Human resource accounting and disclosure: An evolving indicator of performance in selected Nigerian stock exchange-listed manufacturing companies. *African Journal of Accounting and Financial Research*, 3(1), 53-67.
- Barney, J. B. (1988). Returns to bidding firms in mergers and acquisitions: Reconsidering the relatedness hypothesis. *Strategic Management Journal*, 9 (2), 71-78.
- Coase, R. (1937). The nature of the firm. *Economica*, 4(16), 336-405.
- Ijeoma, N, & Aronu, C. O. (2013). Effect of human resource accounting (HRA) on financial statements of Nigerian banks. *International Journal of Advancements in Research & Technology*, 2(8), 342-355.



- Ilaboya, O. J. (2013). Transforming human capital potentials into organisational capability. *Journal of Professional Administration*, 3(5), 37-41.
- Inua O. I. &Oziegbe D. J. (2018). Human resource accounting attributes and the financial performance of quoted banks in Nigeria. *FUO Quarterly Journal of Contemporary Research*, 6(4) 137-151
- Marimuthu, M., Arokiasamy, L., & Ismail, M. (2009). The human capital development and its impact on firm performance: evidence from developmental economics. *Journal of International Social Research*, 2(8) 266-272
- Micah, L.C, Ofurum, C.O, &Ihendinihu, J.U (2012). Firms Financial Performance and Human Resource Accounting Disclosure in Nigeria. *International Journal of Business and Management*; 7(14), 67-75
- Naz, F., & Naqvi, F.I. (2016). Financial performance of firms; Evidence from Pakistan cement industry. *Journal of Teaching and Education*, 5(1), 81-94.
- Odhong, A.E, Were A. &Omolo, J. (2014). Effect of human capital management drivers on organisational performance in Kenya. A case of investment and mortgages bank ltd. *European Journal of Business Management*, 2 (1), 341-356.
- Ofurum and Adeola (2018). Human resource accounting and profitability of quoted firms in Nigeria. *International Journal of Advanced Academic Research*, 4 (2), 58-73.
- Onyinyechi, O.C &Ihendinihu, J.U. (2017). Human resource accounting and financial performance of firms in Nigeria: evidence from selected listed firms on the Nigerian stock exchange. *International Journal of Interdisciplinary Research Methods*, 4(2), 25-33,
- Syed, A.M (2009). Human resource accounting disclosure of Bangladeshi companies and their association with corporate characteristics. *BRAC University Journal*, 1(1), 35-43.
- Wernerfelt, B. (1984) A resource-based view of the firm. *Strategic Management Journal*, 5 (2), 171-180. <https://doi.org/10.1002/smj.4250050207>
- Williamson, O. E. (1979). Transaction cost economics: The governance of contractual relations. *Journal of Law Economics*, 22(2), 233-261.



## MAINSTREAMING BORDERLAND COMMUNITIES FOR SUSTAINABLE POLICIES AND GOVERNANCE IN NIGERIA

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### Abstract

*For decades, emphasis in Nigeria is placed on formal borderland governance structures activities of intra-agency, inter-agency and international collaborations with little attention paid to the local patterns of mainstreaming borderland communities in managing borderlands. The paper examines the efficacy of mainstreaming borderland communities for sustainable borderland policies and governance in Nigeria. Secondary data, official documents such as Federal Constitution of Nigeria, 1999 as amended; Border Communities Development Agency Act, 2003; African Union Border Programme, 2017; International Organisation for Migration, 2017; UN-World Bank Report, 2018; National Border Management Strategy, 2019, were analysed descriptively and provided basis for discussion. The paper found out that, the dilemma with Nigeria's borderland policies had its root in the ratification of the principle of respecting all borderlands as carved by the colonists enshrined in the Resolution AHG/Res. 16(I) of the OAU Charter of July 1964. Till date, the Border Communities Development Agency (BCDA) did not practically address the vacuum created by non-mainstreaming of borderland communities in borderland management system in the country. This distorts the historic borderland communities' internal autonomy and local patterns of managing their borderland, escalating the rate of disintegration and perpetual instability in the management of borderland communities. It is suggested that the policy direction should recognise the 263 borderland communities as the most important stakeholder towards a more sustainable, secure and safe borderland management. Also, an appropriate institutional framework for mainstreaming borderland communities should focus on borderland governance structures that will implement the policy. More importantly, the active leadership of the main agencies responsible for borderland management should intensify efforts to harmonise their operations with that of mainstreamed borderland communities.*

**Keywords:** Borderland communities, Mainstreaming, Governance, Management



## 1. Introduction

The efficacy of borderland management lies with the government putting in place all the appropriate policies and governance structures that ensures safe and secured borderland management in the country. Regrettably, from the colonial era to the most recent National Border Management Strategy (NBMS) and Action of 2019, Nigeria's borderland policies and governance structures (Borderland Control Agencies) have not properly mainstreamed borderland communities. Recent and earlier efforts especially the UN-World Bank report (2018) "*The Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict*"; African Union Border Programme (AUBP, 2017); Collaborative Border Management Approach (UNDP, 2011); Declarations of the African Union Border Programme (2007, 2010 and 2012); ECOWAS 1996 Local Borderland Committee, among others, brought to fore, the sacrosanct of mainstreaming borderland communities to attain sustainable borderland management.

In the past for example, borderland communities in Africa had once enjoyed full autonomy in managing their borderlands that ensured an enduring intra-regional trade, migration of people, goods, services, capital and so on, dating back to the famous trans-Saharan trade. This could not have been achieved without an ingenious borderland management system. This autonomy covers local patterns of management among local communities living along the borderland, covering their vital daily activities of defense, migration, merchandise, land and forest management, town planning, hunting, fishing, gathering of firewood and management of other natural resources.

However, the partitioning of the African borderland communities in 1885 disrupted the established local patterns and affected borderland community as socio-cultural activities netted with their festivals, initiatory, customary and land rituals, confessional events, matrimonial and christening, lineage exchanges and communal works (Cisse, 2007). The effect of this is the distortion of the historic borderland communities' internal autonomy and local patterns of managing their borderland, escalating the rate of disintegration and perpetual instability in resolving issues of borderland management. As indicated by African Union Border Programme (AUBP, 2017), 80% of borderland in Africa were arbitrarily imposed by British and French colonial powers, with 42% drawn by parallels, meridians and equidistant lines. This entirely negates Africans' highly structured self-participatory borderland policies and governance structures, their perfect foreknowledge of the terrain and borderland conflicts resolution mechanisms.

In Nigeria, borderland management is an exclusive function of the Federal government as requirement of national sovereignty that safeguards its territorial integrity and citizens (Federal Constitution, 1999, as amended). The Federal government through the Ministry of Interior solely maintains the nation's internal security, territorial integrity of 923, 769 square kilometres landmass. Strategically situated in West Africa on the Gulf of Guinea, Nigeria has 853-kms coastlines and 4,047-kms of borderland. In the west, it shares borderland of 773 kms with Benin, 1,497 kms with Niger in the north, 87 kms with Chad in the northeast and 1,690 km with Cameroon in the southeast along 21 landlocked states (Scott-Villiers, 2015). For decades,



emphasis in Nigeria is placed on formal borderland governance structures activities of intra-agency, inter-agency and international collaborations with little attention paid to the local patterns of borderland management.

Accordingly, the persistent failures of borderland policies direction had compelled series of trials. As observed by Otaru (2016) in one of such trails, the Federal government of Nigeria established through an Act of the National Assembly, the Border Communities Development Agency (BCDA) Act, 2003 (amended by 2006 Act). The agency is mandated (as a borderland community development-oriented agency) to ensure the sustainable social, economic and infrastructural development of all borderland communities as a panacea for sustainable borderland management in Nigeria. Despite the existence of BCDA for over one-and-half decade, its performance impact is still minimal, as evidenced by the increased outcry of both borderland communities, members of the National Assembly and other concerned citizens alike.

Arising from the above, this paper draws its main thrust from the current research interests for analysing the natures, dynamics and forms of patterns of managing borderland issues drawing lessons from African context. The paper, therefore intends to conceptually examine the efficacy of mainstreaming borderland communities as imperative for sustainable borderland policies and governance structures in Nigeria. Structurally, the paper is divided into four sub-sections. Section one is the introductory which captures problem in context, section two covers conceptual and empirical issues and theoretical framework whilst section three deals with methodology and discussion which provides basis for drawing major findings and the last section deals with policy recommendations and concludes the paper.

## 2. Literature review

### *Conceptual and Empirical Issues*

Although borderland as demarcating lines between states is as old as the human civilisation, it however became more prominent with the emergence of the modern state in 1648. Hansen (1984) describes borderland as sub-national geographical space that is well-defined, whose economic and social life is directly and significantly affected by proximity to the international borderland communities. However, contrary to Hansen's definition, most borderlands in Africa are not well-defined. Zartman (2010) remarks that, borderland runs across land but essentially through people's settlements. It therefore becomes imperative to always alienated borderland communities in all aspects of borderland management. Goodhand (2014) conceives borderland as institutions that can be made use of as fields of opportunities for inhabitants whose optimal concern lies therein.

Borderland communities consist of the people who live in the area by inheritance and by birth as custodians of the land. Traditionally, the land is communally owned and managed by them. They are considered as first-line stakeholders with legitimate interest and direct stake that should not be compromised in the overall management of their land. They consist of traditional, business, opinion and religious leaders, local government and elected officials, professional associations,



youth and women's movements, economic interest groupings like traders, farmers, pastoralists, hunters, fishermen, other locals (Bersin, 2012). They inhabit the borderland locality as area for living, working and source of livelihood all their life. Most importantly, they are highly sensitive to all borderland policies and activities of borderland governance structures. An attempt to alter the existing pattern of borderland management directly affects their daily lives and developed local patterns and informal "rules" of borderland management is considered very essential to security, immigration; trade and intelligence requirements for open, but safe and secured borderland management (Ahmed, 2016).

Mainstreaming entails the placement of borderland communities with specific authorities and responsibilities in borderland sectoral planning, policy making and review process and involvement in the operations of governance structures. Specifically, African Union Border Programme (AUBP, 2017) conceives mainstreaming as granting borderland communities a statutory pillar in the overall borderland policies and governance structures, especially in Africa where communities recognised borderland as their natural habitat. Therefore, any borderland management taken will be doomed to fail if not backed by these first line stakeholders. This also concurs with Zartman (2010) opinion that borderlands are not simply 'lines in the sand or territorial demarcations', but sites of human settlement whose interest in borderland management remained sacrosanct.

Borderland governance reflects institutions premised on the principles and practices of modern borderland management of delegate/plenipotentiary with borderland communities in enforcing and discharging their duties (Deppisch, 2012). It is a process that involves several stakeholders with interests in borderland management over time. Globally, effective manning of borderland is achieved through borderland governance structures (Peter, 2016). Functionally, these have affected the agencies' ability to effectively man the 1,500 both legal and illegal borderland routes into the country. For example, Ekpemedede (2016) observes that only the 100 official routes are manned, while about 1400 routes remained unmanned due to shortage of manpower. Transforming the Nigerian borderland control agencies to borderland governance structures will fortify the dearth of personnel and weak presence at the 1,400 unmanned routes.

Mainstreaming borderland communities took varied approaches globally. Therefore, a one-size-fits-all strategy may be less likely successful. Rather, approaches that account for communities and their peculiarities must be factored in mainstreaming borderland communities into borderland management. Seda (2015) in her work "*Border Governance in Mozambique*" reviewed how Ressano Garcia borderland communities and borderland control officials put up a collaborative initiative that promoted a joint borderland management resolution mechanism. A local leader in the Ressano Garcia community expresses the view that "we acted as advisory councils in which we raised our opinions and influence decisions about borderland management". What this exemplifies is that Mozambique had explored better borderland management initiatives between people whose daily lives resolves around the borderland and government.



Similar pattern of mainstreaming was also studied by Saibou (2007) among the Chad-Cameroon borderland communities, tagged as “*Borderland Modes of Policing*”. These are forums of borderland vigilantes organised by borderland security agencies on borderland management related issues and core worries. Borderland security agencies agreed to collaborate specific with vigilantes to secure the borderland area. Operationally, with an initial logistics support of 500 Cfa, the joint borderland vigilantes and security agencies patrol was able to controlled the cattle rustling and other livestock related crises. This was equally replicated in Bissau-Guinean villages of Bonco and Fajonquito, where many cattle rustlers and forest plunderers were tracked-down and arrested.

Within the West African sub-region, the works of Anderson, O’Dowd and Wilson (2003); Saibou and Cisse (2007), highlighted “*How mainstreaming of traditional techniques of peace-making and socio-cultural solidarities in the reinforcement of social bonds and integration of Fulani Communities*”. The Bobofing borderland communities on the Mali-Burkina Faso Sikasso area, Gambia-Senegal borderland communities and that of Guinea Bissau borderland communities had attained sustainable borderland management, respectively. The study considered traditional nobilities, customary chiefs, religious authorities and other patriarchal bodies as determinants to borderland management. Local councillors, civil societies and so on, served as mediators and facilitators in the mainstreaming process. The resultant effects were control on drug trafficking, illegal exploitation and trafficking of persons and forest products and most importantly, fraudulent trades. As Senegalese Gendarmerie Commander puts it, it has enhanced “cooperation on law and order, keeping trade and traffic control, criminality, and judiciary coordination of some investigations, and most of the time we meet our ends”.

Nigeria’s neighbour Niger launched Borderland Community Engagement, a Border Management Mechanism of the International Organisation for Migration (IOM, 2017) strategy funded by the United States with USD 990,000. This supported the Government of Niger in developing the collaborative capacities of national police and borderland security forces with borderland communities of Diffa and Zinder situated near Niger’s southern border with Chad and Nigeria respectively. Predominantly rural and extremely vulnerable to borderland insecurity due to climate change and insurgencies, the strategy contributed immensely to better collaboration, cooperation and coordination in response to borderland management crises between borderland communities and borderland law enforcement agencies. In recent times, the government of Niger sees these communities as key actors in borderland management, and believes that an efficient coordination between all parties is essential for overall security, stability and peace in Niger. “Security at the borderland is key in Niger. This strategy had reinforced the preparedness of key actors and their coordination,” said Loprete, (2017), Chief of Mission of IOM Niger.

#### *Theoretical Framework*

This paper is underpinned by the Functionalist theory propounded by Jones (1967) as a reaction to the failure of the structuralism (traditional) approach to borderland management. Functionalism is premised on the fact all aspects of a society- institutions, roles, norms, *etc* serve





a purpose and that all are indispensable for the long-term survival of the society. Functionalism also postulates that all cultural or social phenomena have a positive function and that all are indispensable. However, any process or set of conditions that does not contribute to the maintenance or development of the system is said to be dysfunctional. In particular, there is a focus on the conditions of stability, integration, management and effectiveness of the social system. The relevance of this theory to the paper lies on its applicability to borderland management practices as borderland communities still adopt their indigenous management structures as indispensable for the survival of the communities. A scenario viewed by the functionalists as continuity of a “culturally bounded borderland activities” a permanent non-state system for coordinating their borderland management activities.

Putting functionalist theory into perspective indicates that a social system is assumed to have a functional unity in which all parts of the system work together with some degree of internal consistency where mutual inclusiveness is promoted. Jones (1967) maintains that, this approach is principally concerned with what happens around the borderland itself and how this affects borderland management. Reckoning with the sociological and anthropological antecedence of the borderland community practices provides the institutional framework for mainstreaming the informal but relevant indigenous activities into borderland management. The suitability of the functionalist approach to this paper lies in the perspective that top-bottom approach had failed, the ignored bottom-up, local functional practices are options that can be employed and resulted to (mainstreamed) proving a more sustainable mechanism for borderland management.

### **3. Methodology**

The nature of subject matter of this paper necessitates the use of secondary data where scholarly expositions and official documents such as Federal Constitution of Nigeria, 1999 as amended; Border Communities Development Agency Act, 2003; African Union Border Programme, 2017; International Organisation for Migration, 2017; UN-World Bank Report, 2018; National Border Management Strategy, 2019 are correlated, synthesized and presented in a logical sequence. This enabled us to analyse descriptively, the contentious nature of borderland management system.

### **4. Result**

#### *Discussion*

Chronicling of the Nigeria’s quest for sustainable borderland management depicts a three-stage of borderland management cycle- the pre-colonial, the colonial and the post-colonial eras, respectively. The pre-colonial stage had native borderland communities with local patterns autonomy of managing their borderland. This indigenous borderland management consisted of their intimate knowledge of the terrain and its geographical dispositions, farming, fishing, trading including also criminal gangs’ routes and movements (Bersin, 2012). These facilitated sustainable borderland management that guaranteed the famous trans-Saharan trade. However, as Nugent (1996) explains, the effects of the Berlin Conference (1884/85) “*Scramble for Africa*” distorted borderlands in Africa, generally. Borderland communities spliced apart ethnic and social groups and the existing local patterns of autonomy altered significantly. The emerged





borderland became manageable and source of crises between communities and borderland control agencies which metamorphoses into an ideological war forming a motion of binary distinctions of “here” and “there”, “us” and “them”, the “included” and the “excluded”. Borderland communities as first-line stakeholders who should be included were excluded, while those who should be excluded were included. A scenario that even after independence continued by the rectification and adoption of the principle of respecting all borderland as carved by the colonists, enshrined in the Resolution AHG/Res. 16 (I) of the OAU Charter of July 1964.

The report of Justice Anigolu Tribunal of Inquiry into the 1980 *Maitatsine* violent riots that erupted in Kano and some other parts of northern Nigeria was among the earlier attempts by the federal government to take serious action on *Maitatsine* saga. The report attributed the uprising to the seemingly unmanned and poorly secured expansive and extensive area of the nation’s borderland. The tribunal recommended the creation of a Border Patrol Unit (BPU) in the Nigeria Immigration Service (NIS), (a unit hitherto not existing) and be well-equipped and funded, to ensure enhanced borderland security. The government issued a ‘White Paper’ that eventually created the BPU in 1983; to man 4,047 km borderland (Ekpemede, 2016). Similarly, despite waiting for twenty-three years to make a conscious attempt, the BPU have grossly underperformed in manning the expansive and extensive nation’s borderland system.

As envisaged by Gerstein, Atler, Davenport, Grill, Kadlec and Young (2018), the policy dilemma is that the Border Communities Development Agency (BCDA) does not practically address the vacuum created by non-mainstreaming of borderland communities in borderland management. Reviewing of BCDA 2006 Act, Part I, Section 1; the composition and establishment of the 28-member governing board responsible for the general policy guidelines and day-to-day administration of the Agency had no borderland communities’ representation. From the Vice-President of the Federation, who heads the Agency as the Chairman down to six members representing each of the six geo-political zones. Also, Part II, Section 3(d) titled the Functions and Powers of the Agency, conspicuously buttressed the weak collaboration between the Agency and borderland communities but emphatically encouraging stronger collaboration with National Boundary Commission (NBC) (Olujimi, 2010).

In the same vein, the recent 2019 National Border Management Strategy and Action, which aims at among others, enhancing national borderland security; ensures protection of citizens; further boost NIS’ effectiveness and efficiency in the nation’s borderland management; address the changing realities and new challenges of borderland policies and governance structures in Nigeria. There exists no formal framework for mainstreaming borderland communities into borderland management, despite the Reinforcing Social Harmony Clause Part II, Sub-section (3):

*NIS’ approach to border management will positively contribute to social harmony by: Continually strengthening the credibility of NIS with contiguous cross-border communities; deepening community contributions to managing borders in their home areas; further engaging cross-border cooperation; and*



*diminishing fears of migrants and backlash against them through highly competent and transparent approaches to border management.*

Though, the strategy was an outcome of wider consultations and deliberations of approximately 100 officials drawn from relevant ministries, departments, and agencies of government, non-state actors, stakeholders and civil society organisations working on border management in Nigeria (NIS, 2019). Majority of the participants were drawn from the public sector representing the government, only a fraction represented the non-state actors, civil society organisations and borderland communities. The lack of any formal framework to actualize the Reinforcing Social Harmony Clause clearly buttresses the fact that borderland community's presence and inputs were not only grossly insignificant but also immaterial.

Besides, there have been increased agitations and criticism of government and its borderland control agencies of non-mainstreaming borderland communities in borderland management (UN, 2018). This is in addition to the already compounded dearth of basic social amenities, infrastructures development, and lack of job opportunities for its teeming population by the borderland communities. This is despite the federal government attempt at addressing these agitations and criticisms by establishing through an Act of the National Assembly, the Borderland Communities Development Agency (BCDA) Act, 2003 (as amended by BCDA Act, 2006). In the words of the then Executive Secretary Numoipte Wills, the Agency is mandated to prepare and execute a comprehensive policy, projects, programmes of action for the development of the borderland communities, coordinate and monitor the activities of all relevant Ministries involved in implementations, among others. The Agency's mission is to work with State Border Commission's representatives from Nigeria's 21 borderland states. This developmental perspective was hopefully seen to ease pressure on government and its borderland control agencies as mentioned above (Otaru, 2016). Unfortunately, this effort remains passive and not delivering the desired effect, as it has not curtailed or lessened the agitations and criticisms of both developmental and non-mainstreaming perspectives.

Clearly, what is left for the 263 non-mainstreamed borderland communities, just like all other communities in Nigeria is the Community Policing of the Nigeria Police (NP). Ojukwu (2006) provides the initial insights on the concept of community policing as a cooperative framework between the NP and communities which have assisted in the war against criminals in Nigeria. A collaborative platform by the NP that recognised the traditional security institutions and the involvement of opinion leaders to win the battle against crime and criminality; an approach currently institutionalised by the National Assembly and assented to by the President in 2020. However, the 263 Nigerian borderland communities are unique and different with other non-borderland communities that have in place community policing.

In the views of Jańczak (2013), borderland communities over time have developed nuances for borderland management, that include responsibilities of each member relating to cross-border trade and movements, smuggling and smuggling routes, trafficking in persons and illicit goods, conflict resolution mechanisms, relationship between borderland communities and other entities



especially borderland control agencies. Despite being non-mainstreamed, borderland communities still continue to adopt their indigenous management in surmounting the disruptive impact of both the colonial and post-colonial dilemmas of borderland policies and governance structures (Adiwaju, 1984). A scenario viewed by the functionalists as continuity of a “culturally bounded borderland activities” a permanent non-state system for coordinating their borderland management activities (Olujimi, 2010).

Constitutionally, the borderland governance structures of Nigerian Immigration Service (a frontline agency with roles in borderland management as pertains to the movement of persons across the borderland); Nigeria Customs Service (NCS); Nigeria Police (NP Border Patrol); Department of State Security (DSS); National Agency for the Prohibitions of Traffic in Person and Other Related Matters (NAPTIP); National Drug Law Enforcement Agency (NDLEA); National Agency on Food Drug Administration and Control (NAFDAC); National Boundary Commission (NBC) and so on, are saddled with the sole responsibility of borderland management in Nigeria (NIS, 2019). Inter alia, these agencies are to ensure the full implementation of all borderland management policies, regardless of the substance and quality of the policies in question. However, these institutions cannot go beyond their enabling policy hence, these institutions are underpinned by the non-mainstreaming (traditional) of borderland communities’ policies.

Besides been relics of colonial institutions, constitutionally; these institutions operate strictly with no realm of limping decentralisation reflecting the non-mainstreaming posture of the Exclusive List. This however, does not constitute the ideal global borderland governance structures which refer to the whole system of discharging functions within the framework of institutional culture of collaborating with civil societies and other non-state actors (Peter, 2016). This, as set out in the AU Constitutive Act (Articles 3-4) incorporates sets of shared values that stipulate the principles of democratic governance, democratic culture and popular participation, transcending mere management of the borderland to include rights and participations of borderland communities.

#### *Findings*

Based on discussions drawn mainly from secondary data, this paper found that, the dilemma with Nigeria’s borderland policies had its root in the ratification of the principle of respecting all borderlands as carved by the colonists enshrined in the Resolution AHG/Res. 16(I) of the OAU Charter of July 1964. Till date, the Border Communities Development Agency (BCDA) did not practically address the vacuum created by non-mainstreaming of borderland communities in borderland management system in the country. The effect of this is the distortion of the historic borderland communities’ internal autonomy and local patterns of managing their borderland, escalating the rate of disintegration and perpetual instability in the management of borderland communities.



## 5. Conclusion and Recommendations

Based on the discussions and empirical evidences highlighted in the paper, we submit that a one-size-fits-all strategy of mainstreaming borderland communities may be less likely successful. Rather, approaches that account for the communities and their peculiarities must be factored in mainstreaming borderland communities into borderland management. However, a critical review of borderland management in Nigeria catalyses the imperative of mainstreaming borderland communities and the need for reshaping borderland policies and governance structures for attaining sustainable borderland management in the country.

Principally, the policy direction should recognise the 263 borderland communities as the most important stakeholder towards a more sustainable, secure and safe borderland management. This could make borderland management more cooperative, collaborative and enduring. Also, an appropriate institutional framework for mainstreaming borderland communities should focus on borderland governance structures that will implement the policy. Fundamentally, mainstreaming borderland communities will also require amending the constitutional provisions on borderland management by the National Assembly and for it to succeed, the National Assembly must establish the normative, institutional, operational, collaborative, financial, and control frameworks for mainstreaming borderland communities. The normative framework should incorporate all the broad-base issues for mainstreaming borderland communities in the vision, strategic goals and defining action plans as similarly captured in the Community Policing framework.

More importantly, the active leadership of the main agencies responsible for borderland management should intensify efforts to harmonise their operations with that of mainstreamed borderland communities. The agencies should conduct the necessary analyses and review of borderland issues in ensuring that the vision and priorities are well-defined at the policy initiation level; effectively planned, implemented and monitored to ensure strict compliance.

### *Limitations of the Findings and Guides for Future Study*

Although the findings of the paper appear more generic than specific, comparative studies should be undertaken by future researches to demystify the imperatives for mainstreaming the borderland communities and identify how other African countries achieved sustainable borderland management. Such comparative studies should exemplify how borderland communities' power brokers such as political, administrative, opinion, traditional, religious, business, and the vigilante groups are involved in formulating, implementing and evaluating the entire policy, programme and projects cycle of borderland management.

## References

- African Union Border Programme, (2017). Draft African Union Border Governance Strategy in: <http://aubis.peaceau.org/en/page/72-about> (13 November).
- Ahmed, N. (2016). Tunisia-Libya Border Buffer Zone Deprives Residents of Income, al-Monitor.



- Anderson, J., O'Dowd, L. & Wilson, T.M. (eds). (2003). *Cross-border Cooperation and Governance*. London: Frank Cass.
- Asiwaju, A. I. (1984). Towards an ethno-history of African state boundaries, In the methodology of contemporary African history. The General History of Africa: Studies and Documents. Report and Papers of the Meeting of Experts Organised by The United Nations Educational, Scientific and Cultural Organisation (UNESCO), Paris: Imprimerie des Presses Universitaires de France, Vendôme.
- Bersin, A. (2012). Lines and flows: The beginning and end of borders', *Brooklyn Journal of International Law*, 37(2), 389-406.
- Cisse, P. (2007). Communautés Bobofing du Mali et du Burkina Faso. Concept de frontière et pratique des espaces transfrontaliers au sud-est de Sikasso, Mali. In *Stratégies de populations et stratégies de développement. Convergences ou divergences?*, (pp.29-53). Actes de Symposium international. IPDSR. Dakar: Université Cheikh Anta Diop. 24-27 juillet 2006.
- Gerstein, D. M., Adler, A., Davenport, A. C., Grill, B., Kadlec, A., & Young, W. (2018). *Managing international borders, Balancing security with the licit flow of people and goods*. RAND's publications.
- Deppisch, S. (2012). Governance processes in Euregios. Evidence from Six Cases across the Austrian-German Border, *Planning Practice and Research*, 27(3), 315-332.
- Ekpedede, K. (2016). The Nigerian Immigration Service. *The Gatekeeper*, 2(3), 9-59.
- Federal Government of Nigeria, (1999). Constitution of the Federal Republic of Nigeria, Abuja: Federal Government Printer
- Goodhand, J. (2014). *The political economy of development in borderlands*. Washington, DC: World Bank Group.
- Hansen, N., (1984) The border economy: Regional development in the South-West (Texas: University of Texas Press, 1981), 19 cited in A.I. Asiwaju, Artificial Boundaries, *An Inaugural Lecture delivered at the University of Lagos*, Lagos: University of Press.
- International Organisation for Migration, (2017). *Development of border regions*. Geneva, Switzerland: IOM
- Jańczak J. (2013). Revised boundaries and re-frontierization. Border twin towns in Central Europe. *Revue d'études comparatives Est-Ouest*, 44(4), 53-92.
- Jones, R. (1967). *The functional analysis of politics: An introductory discussion*. London: Routledge and R. Paul.
- Loprete, G. (2017). International organisation for migration (IOM), World migration report 2017: Managing labour mobility in the evolving global economy. Washington, DC: IOM.s
- NIS, (2019). *Nigeria Immigration Service, Nigeria Immigration Service Draft 5-Year Border Security and Management Strategic Document*, Publisher: International Organisation for Migration Mission in Nigeria 11 Haile Selassie Street, Asokoro, Abuja, Nigeria.
- Nugent, P. (1996). Arbitrary lines and the people's minds: A dissenting view on Colonial boundaries in West Africa. In *African Boundaries: Barriers, Conduits and Opportunities*, edited by Paul Nugent, and Anthony I. Asiwaju. London: Pinter.



- Ojukwu, E.C.S. (2006). Cross border crime: The community policing imperative in cross border crimes and community policing: Prospects and challenges in Nigeria-Benin Cross-Border Areas of Ogun State edited by A.I. Asiwaju et al. (Imeko: African University Institute, 28 41.
- Olujimi, K. M. (2010). Implications of colonially determined boundaries in (West) Africa: The Yoruba of Nigeria and Benin in Perspective. Doctoral Thesis. School of Government and International Affairs. University of Durham. Retrieved from Durham E-Theses Online: <http://etheses.dur.ac.uk/496/>.
- Otaru, A. (2016). Lack of awareness, neglect stall rapid development of border communities, says Wills, The Guardian 04 June 2016, 3
- Peter, U. (2016). Institutionalising (cross-border) citizenship on sub-national level- The European Grouping of Territorial Cooperation (EGTC) as a new administrative space for participatory and functional governance in Europe, Federal Governance, 13/1, 11.
- Saibou, I. (2007). Les modes de sécurisation par « le bas » : atouts et limites de la prise en charge populaire. Lecture given at the CODESRIA Governance Institute. August 2007. Dakar.
- Scott-Villiers, P. (2015). *Cross-border dynamics in the Kenya– Ethiopia Borderlands Cluster*. Washington, DC: World Bank Group.
- Seda, F. L. M. (2015). Border governance in Mozambique: The intersection of International Border Controls, *International Journal of Migration and Border Studies*, CERES.
- United Nations and World Bank, (2018). *Pathways for peace: Inclusive approaches to preventing violent conflict*. Washington, DC: World Bank.
- Zartman, W.I. (2010). Identity, Movement and Response. In W. I. Zartman (ed.) *Understanding Life in the Borderlands: Boundaries in Depth and in Motion*. Athens, GA: University of Georgia Press.



## EFFECT OF COMMITMENT ON JOB SATISFACTION OF ACADEMIC STAFF OF KADUNA STATE TERTIARY EDUCATION INSTITUTIONS

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### Abstract

*This study investigated the effect of organisational commitment dimensions on job satisfaction of academic staff of Kaduna State tertiary education institutions. Out of four hundred and six copies (406) of questionnaire administered, three hundred and forty eight (348) were analysed. The hypotheses were tested using Structural Equation Modeling (SEM), with results indicating that both affective commitment and normative commitment have significant effect on job satisfaction; but continuance commitment failed to have significant effect on job satisfaction of academic staff. The variance in job satisfaction was all accounted for by affective commitment, continuous commitment and normative commitment, with the effect size of affective commitment on job satisfaction more than continuance commitment and normative commitment. Finally, recommendations were made based on the findings of the study to channel efforts at improving academic staff commitment. Also, the study provided suggestion for future studies.*

**Keywords:** Organisational commitment, affective commitment, continuance commitment, normative commitment, job satisfaction, and pay satisfaction

### 1. Introduction

The overall performance of tertiary institutions depends upon the academic staff and ultimately their level of job satisfaction. Thus, job satisfaction has been described as an important construct to study in the context of tertiary education institutions, because educational institutions need to attract, retain and maintain competent and satisfied academic staff (Khalid, Irshad & Mahmood, 2012; Osakwe, 2014; Amarasena, Ajward & Haque, 2015). Studies (like Singh & Loncar, 2010; Zaman, Mahmud & Jahan, 2014; Mehrad, Hamsan, Redzuan & Abdullah, 2015; A'yunnisa & Saptoto, 2015; Yousef, 2017) have described the pay facet of one's job as the main determinant of job satisfaction, because pay serves as the means to meet basic necessities of employees, which is crucial





for one's well-being and sufficient to influence one's behavior. Pay is defined as "the amount of financial remuneration that is received and the degree to which this is viewed as equitable vis-à-vis that of others in the organisation or similar job (Khan, Khan, Nawaz & Khan, 2009)." Satisfaction with pay occurs when the income of employees enables them to have luxuries or at least cover normal expenses and when they perceive that their income is fair (Balzer, Kihm, Smith, Irwin, Bachiochi, Robie, Sinar & Parra, 2000).

According to Mawoli and Babandako (2011), Ameen, Olowoselu and Dauda (2017) and Beji (2018), pay is the most dissatisfied facet among academic staff in Nigeria, because the gap between the amount expected and the actual amount received is large; pay is not paid as and when due; and some State Governments are yet to consider the implementation of the Consolidated Polytechnics and Colleges of Education Academic Salary Structure [CONPCASS]. Despite all these irregularities, state owned tertiary education institutions do not often take into consideration the satisfaction of their employees (Azeez, Jayeoba & Adeoye, 2016). Thus, this kind of experience leads to job dissatisfaction, resulting into unfavourable outcomes such as high turnover, reduced teaching effectiveness, industrial actions (strikes), absence from work and diverted time and effort to obtaining other sources of income including corruption and secondary employment in other jobs. Also, staff may have deliberately reduced their performance or felt that less satisfied job justified poor performance. As a result, public service delivery has suffered significantly (Malik, Nawab, Naeem, & Danish, 2010; Osakwe, 2014). Fapohunda (n. d) concurs that about 80% of industrial actions by academic staff experienced in Nigeria are attributed to pay dissatisfaction. Umaru and Ombugus (2017) conclude that it is only when lecturers are meeting their basic needs in life such as food, clothing and healthcare by means of equitable pay in terms of its adequacy and regularity, they perform optimally in workplace. Therefore, this study conceptualises pay satisfaction as job satisfaction.

Though, pay cannot be improved by individual institutions even if it appears to be the most dissatisfied facet since it involves government policy (Unutmaz, 2014), but understanding the antecedents of pay satisfaction is a way of influencing academic staff's level of job satisfaction (Williams, McDaniel & Nguyen, 2006). Khan, Nawaz and Khan (2013) posit that the organisational commitment of academicians is critical with the globalisation of education. Since organisational commitment has become one of the most popular subjects of management studies in the last decade, therefore remains a principal factor influencing the growth and survival of any organisation. Inanc and Ozdilek (2015) concur that in order to boost the satisfaction of the academic staff, tertiary education institutions should try to increase the organisational commitment level of academicians. Organisational commitment is viewed as the connection an employee has with his organisation, to the extent that he/she works, and can identify with the values of the organisation (Ball & Cohen, 1996).

Meyer and Allen (1991) reveal three dimensions of commitment namely affective commitment, continuance commitment and normative commitment. Affective commitment





referred to the desire-based dimension because employees want to stay or feel is the right thing to do, which originates from employees' emotional attachment to their organisation, and might turn down offers even if they seem more attractive financially based on emotional attachment (Dikko, Mutalib & Ghazali, 2017). Continuance commitment is the cost-based dimension which stems from financial concerns of employees, because of fear of losing the benefits employee is acquiring from the job (Tekin, Kayacan & Bektaş, 2014). Normative commitment referred to obligation-based dimension because employees feel they ought to (Meyer & Allen, 2004), especially where organisation may have invested resources in training an employee who then feels an obligation to put more efforts on the job and stay with the organisation to repay the debt.

Empirical evidence has shown that organisational commitment and job satisfaction are more imperative to study in tertiary institution (Malik et al., 2010; Amarasena et al., 2015), because it shows that teachers who are committed to the organisation are likely to be eager to contribute to the organisation's goals and are more likely than others to extend their efforts beyond their required task performance to further the effectiveness of the organisation, even if they do not expect to be directly rewarded for this behavior (Kehoe & Wright, 2013). Both organisational commitment and job satisfaction level of workers are essential factors related with the overall success of the organisations. Though, various studies were conducted on organisational commitment and job satisfaction, yet very few studies have been conducted regarding the relationships between organisational commitment dimensions and job satisfaction of academic staff in developing countries (Inanc & Ozdelik, 2015; Mabasa, Mabasa & Netshidzivhani, 2016); also relevant literature reviewed shows that public sector employees' commitment and job satisfaction is under-researched area particularly the state owned tertiary education institutions in Nigeria (Saliu, Gbadeyan, & Olujide, 2015), yet no study of this nature has been conducted among academic staff of Kaduna State tertiary education institutions. In view of this backdrop, thus, the present study investigated the effect of organisational commitment dimensions on job (pay) satisfaction of academic staff of Kaduna State tertiary education institutions. After the introduction, this study is organised into review of related literature, methodology, results, discussions, and conclusion and recommendations.

## 2. Literature Review

### *Affective Commitment and Job Satisfaction*

Studies (Adekola, 2012; Inanc & Ozdilek, 2015) have reported that higher level of commitment among employees will definitely generate higher level of job satisfaction among employees. With this, there exist a significant positive linear relationship between job satisfaction and organisational commitment. The existing relationship between the two variables was as a result of the presence of affective commitment scores in total organisational commitment. In other words, the more an employee feels emotional attached to his organisation, the more he will be satisfied with his job. The relationship between the



two variables is not significant when the contribution of affective commitment was taken out. Saliu et al. (2015) supported that a positive relationship exists between organisational commitment and job satisfaction but affective commitment has little or no significant relationship with job satisfaction. Similarly, Braje and Samardija (n. d) did not confirm the relationship between pay satisfaction and affective commitment. However, Omoankhanlen, Oloda and Ajienga (2014) and Malik and Narang (2015) revealed a significant positive relationship between pay satisfaction and affective commitment.

#### *Continuance Commitment and Job Satisfaction*

Gangai and Agrawal (2015) observed a significant correlation between continuance commitment and job satisfaction with  $r = - 0.291$ , even though it shows a negative correlation. Similarly, Inanc and Ozdilek (2015) discovered that continuance commitment has a negative impact on job satisfaction. Meaning, the more an academician feels continuance commitment to the organisation, the less satisfied he/she will be towards the job. This was linked to lack of alternatives, especially where cost of leaving the current organisation (forfeiting nontransferable investments) is high (Khan, Naseem & Masood, 2016; Yousef, 2017). The nontransferable investments include pay and benefits, and were found to be positively and significantly correlated with continuance commitment (Braje & Samardija, n. d; Omoankhanlen et al., 2014; Saliu et al., 2015; Mabasa et al., 2016). In other words, employee satisfaction with pay is likely to affect employees' desire to remain with the organisation due to costs that the employee associates with leaving the organisation. Conversely, Malik and Singh (2016) and Khan et al. (2016) reported a no significant relationship between continuance commitment and job satisfaction.

#### *Normative Commitment and Job Satisfaction*

Vandenbergh and Tremblay (2008) discovered in their studies that employees' sense of indebtedness and appreciation lead to job satisfaction because employees feel they have received a fair amount of resources from the organisation. According to Braje and Samardija (n. d) and Omoankhanlen et al. (2014) a significant positive relationship exists between pay satisfaction and normative commitment of employee while Gangai and Agrawal (2015) reported a significant negative correlation between normative commitment and job satisfaction. However, Inanc and Ozdilek (2015) and Mabasa et al. (2016) reveal that normative commitment correlates with job satisfaction in a positive way, although not statistically significant.

#### *Theoretical Framework*

The study adopted the tenet of social exchange theory by Blau (1964), after establishing possible relationships between affective commitment, continuance commitment and normative commitment as the independent variables and job (pay) satisfaction as the dependent variable. The theory states that as one party receives something of value from another, the receiving party feels obligated to return something of value in exchange; if an



individual wants to continue receiving benefits, that person must give something of value in return. Therefore, the framework below was employed to guide the study

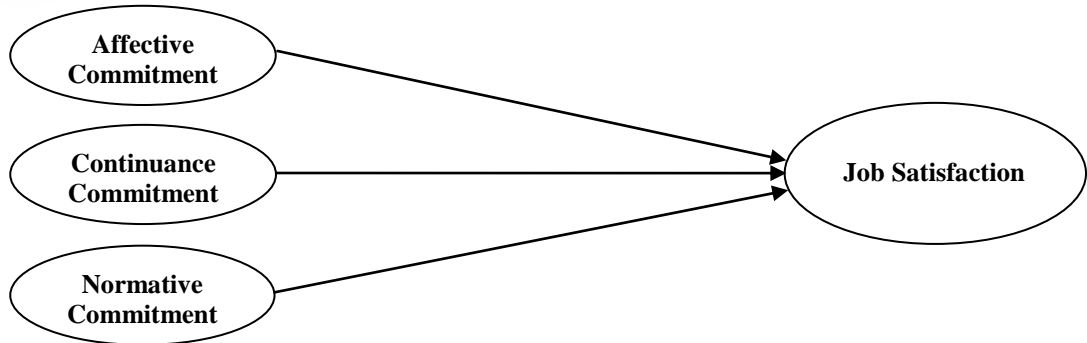


Figure1: Study Framework

### 3. Methodology

This study employed survey research design and the population was academic staff in the four (4) tertiary education institutions other than university owned by Kaduna State Government, being the centre of learning and the only state where its academic staff are still enjoying 80% of the old Consolidated Tertiary Institutions Salary Scale (CONTISS). Given a total population of 1,414 academic staff in Kaduna State owned tertiary education institutions notably Kaduna State College of Education, Gidan Waya (KSCOE); Nuhu Bamalli Polytechnic, Zaria (NBP); Shehu Idris College of Health Sciences and Technology, Makarfi (COHST); and Kaduna State College of Nursing and Midwifery, Kaduna (KSCONM); 312 formed the sample size using Yaro-Yamen's formula with 5% level of significance.

Thereafter, the sample size was increased by 30% [ $312 + (312 * 0.30) = 406$ ] to be sure that proportional selection of elements was large enough to account for the total size of elements in each stratum as recommended by Israel (1992), Bartlett, Kotrlik and Higgins (2001) and Salkind (2012). Only 359 questionnaires were finally analysed after data screening. The questionnaire consisted of five sections, with section consisting demographic information. Section two, three and four were based on the revised version of the organisational commitment questionnaire by Meyer, Allen and Smith (1993) as described in Meyer and Allen (2004). Finally, section five consists of pay satisfaction by Balzer et al. (2000). Section two to five were measured on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. For this study, the Structural Equation Modeling (SEM) was employed for descriptive statistics and hypotheses testing.



#### 4. Results

##### *Descriptive Statistics*

The study recorded high level of affective commitment (M=3.76, SD= 0.58), high level of continuance commitment (M=3.54, SD= 0.63), high level of normative commitment (M=3.65, SD= 0.60), and fairly satisfied with pay (M=3.03, SD= 0.82), because it recorded the lowest mean. This implies that academic staff of Kaduna State tertiary education institutions are committed in their various institutions, even though they are fairly satisfied with pay.

##### *Test of Hypotheses*

Table 1 below, presented the results of the path coefficient for direct effect.

Table 1: Path Coefficient for Direct Effect

Hypotheses	Relationship	Beta Value	Std error	T Stat	p-value	Decision
H <sub>1</sub>	ACOM => JSAT	0.374	0.116	3.105	0.029**	Rejected
H <sub>2</sub>	CCOM => JSAT	0.189	0.124	1.465	0.122	Accepted
H <sub>3</sub>	NCOM => JSAT	0.273	0.112	2.437	0.036**	Rejected
R <sup>2</sup>		0.317				

Note: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

From table 1, it can be seen that affective commitment has a significant positive relationship with job satisfaction. Going by the reviewed literature, the study provides empirical evidence that affective commitment has significant relationship with job satisfaction (Adekola, 2012; Inanc & Ozdilek, 2015; Omoankhanlen et al., 2014; Malik & Narang, 2015); and thus the findings of the present study supported the existence of significant effect of affective commitment on job satisfaction. Therefore, the first hypothesis (H<sub>1</sub>) that states that affective commitment has no significant effect on job satisfaction of academic staff of Kaduna State tertiary education institutions is rejected.

The findings revealed that, there is no any direct effect of continuance commitment on job satisfaction, even though the relationship was positive, it was found not to be significant. Thus, this contradicted earlier findings (e.g., Braje & Samardija, n. d; Omoankhanlen et al., 2014; Saliu et al., 2015; Mabasa et al., 2016) that employees are continually committed by associating their payment and benefits with the work they have done. This indicates that most academic staff are not only on the job due to high costs of leaving their institutions but other factors, hence the reason for no significant relationship between continuance commitment and job satisfaction. Therefore, hypothesis two (H<sub>2</sub>) that states continuance commitment has no significant effect on job satisfaction of academic staff of Kaduna State tertiary education institutions is supported.

The result also showed that normative commitment has a significant positive relationship with job satisfaction and this implies that a unit change in normative commitment level will lead to change in job satisfaction. Thus, consistent with general expectations, the findings



also supported previous empirical results that normative commitment significantly relates with job satisfaction (Vandenberghe & Tremblay, 2008; Braje & Samardija, n. d.; Omoankhanlen et al., 2014). This implies that an increase in normative commitment facilitates job satisfaction of academic staff. Thus, the third hypothesis which states that normative commitment has no significant effect on job satisfaction of academic staff of Kaduna State tertiary education institutions is rejected.

Finally, table 1 reported the R square value at 0.317 which means that 31.7% variance in job satisfaction is accounted for by affective commitment, continuous commitment and normative commitment. Hence, the result indicates the existence of relationship between the independent variables and the dependent variable. With this, the study validates the submission of previous research that organisational commitment is one of the antecedents of job satisfaction.

## 5. Conclusion and Recommendation

In conclusion, as tertiary education institutions give more preference to human oriented objectives like capacity development, the more academics feel compelled for affective and normative reasons to remain in their organisation. As a result, most academics become satisfied with their job. This explained the positive relationships found between affective commitment and job satisfaction, and normative commitment and job satisfaction in this study. Lastly, in order to maintain competent and satisfied academic staff, it is recommended that Kaduna State Government and management of the tertiary education institutions should channel efforts at improving organisational objectives and programmes to be more of people-oriented, thereby inducing affective and normative commitment and reducing job dissatisfaction of academic staff. Furthermore, future studies should introduce human resource management practices (HRMPs) as moderator on the relationship between organisational commitment dimensions and job satisfaction for further theoretical contributions.

## Reference

- Adekola, B. (2012). The impact of organisational commitment on job satisfaction: A study of employees at Nigerian Universities. *International Journal of Human Resource Studies*, 2(2), 1 – 17.
- Amarasena, T. S. M., Ajward, A. R., & Haque, A. K. M. A. (2015). The effects of demographic factors on job satisfaction of University faculty members in Sri Lanka. *International Journal of Academic Research and Reflection*, 3(4), 86 – 106.
- Ameen, A., Olowoselu, A., & Dauda, M. (2017). Factors inhibiting effective management of Tertiary Education in Kwara State: Evidence from the Colleges of Education. *African Journal of Management*, 2(1), 68 – 86.
- A'yuninnisa, R. N., & Saptoto, R. (2015). The effects of pay satisfaction and affective commitment on turnover intention. *International Journal of Research Studies in Psychology*, 4(2), 57 – 70. DOI: 10.5861/ijrsp.2015.1055



- Azeez, R. O., Jayeoba, F., & Adeoye, A. O. (2016). Job satisfaction, turnover intention and organisational commitment. *Journal of Management Research*, 8(2), 102 – 114.
- Ball, D. L., & Cohen, D. K. (1996). Reform by the book: What is: Or might be: The role of curriculum materials in teacher learning and instructional reform? *Educational researcher*, 6 – 14.
- Balzer, W. K., Kihm, J. A., Smith, P. C., Irwin, J. L., Bachiochi, P. D., Robie, C., . . . Parra, L. F. (2000). Users' manual for the Job Descriptive Index (JDI; 1997 version) and the Job in General scales. In J. M. Stanton, & C. D. Crossley (Eds.), *Electronic resources for the JDI and JIG*. Bowling Green, OH: Bowling Green State University
- Bartlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organisational research: Determining appropriate sample size in survey research. *Information Technology, Learning, and Performance Journal*, 19(1), 43 – 50.
- Beji, D. (2018). *Minna College of Education lecturers begin indefinite strike over retirement age*. Retrieved on November 20, 2018 from <https://newsbreakers.ng/minna-college-of-education-lecturers-begin-indefinite-strike-over-retirement-age/>
- Blau, P. M. (1964). *Exchange and power in social life*. New York: John Wiley.
- Braje, I. N., & Samardija, M. (n. d). The role of pay satisfaction in building organisational commitment. An enterprise odyssey: Saving the sinking ship through human capital. *Accounting and Finance*, 166 – 173.
- Dikko, A. Y., Mutalib, R. A., & Ghazali, S. (2017). Moderating role of power distance on personality towards affective commitment of lecturers in Nigeria. *International Journal of Management Research & Review*, 7(2), 82 – 98.
- Fapohunda, T. M. (n. d). Pay disparity and pay satisfaction in public and private Universities in Nigeria. *European Scientific Journal*, 8(28), 120 – 135.
- Gangai, K. N., & Agrawal, R. (2015). Job satisfaction and organisational commitment: Is it important for employee performance. *International Journal of Management and Business Research*, 5(4), 269 – 278.
- Inanc, E. E., & Ozdilek, E. (2015). *Relationship between the organisational commitment and job satisfaction of academic staff in Turkey*. Retrieved on February 20, 2018 from <http://ircconferences.com/>
- Israel, G. D. (November, 1992). *Determining sample size. Program evaluation and organisational development*, Institute of Food and Agricultural Sciences (IFAS), University of Florida. PEOD-6. <http://edis.ifas.ufl.edu>.
- Kehoe, R. R., & Wright, P. M. (2013). The impact of high-performance human resource practices on employees' attitudes and behaviors. *Journal of Management*, 39(2), 366 – 391. DOI: 10.1177/0149206310365901
- Khalid, S., Irshad, M. Z., & Mahmood, B. (2012). Job satisfaction among Academic Staff: A comparative analysis between public and private sector Universities of Punjab, Pakistan. *International Journal of Business and Management*, 7(1), 126 – 136.



- Khan, A. S., Khan, S., Nawaz, A., & Khan, N. (2009). Demographic impact on the job satisfaction of the District Executive offices in Local Government, Pakistan. *Gomal University Journal Research*, 25(2), 1 – 19.
- Khan, R., Naseem, A., & Masood, S. A. (2016). Effect of continuance commitment and organisational cynicism on employee satisfaction in engineering organisations. *International Journal of Innovation, Management and Technology*, 7(4), 141 – 146. DOI: 10.18178/ijimt.2016.7.4.661
- Khan, I., Nawaz, A., & Khan, M. S. (2013). Determining the organisational commitment of academicians in public sector Universities of developing countries like Pakistan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3(1), 280 – 289.
- Mabasa, F. D., Mabasa, E. L., & Netshidzivhani, M. V. (2016). The relationship between job satisfaction and organisational commitment among Academic Staff members in a selected higher education institution. *International Academic Conference Proceedings*, Vienna, Austria.
- Malik, B., & Narang, D. (2015). A study on the impact of job characteristics on key attitudes of faculty members in professional educational institutes. *European Scientific Journal*, 11(16), 442 – 456.
- Malik, M. E., Nawab, S., Naeem, B., & Danish, R. Q. (2010). Job satisfaction and organisational commitment of University teachers in public sector of Pakistan. *International Journal of Business and Management*, 5(6), 17 – 26.
- Malik, S., & Singh, P. (2016). A study on the relationship between job satisfaction and components of organisation commitment in Indian telecommunication sector. *International Journal of Science Technology and Management*, 5(1), 276 – 286.
- Mawoli, M. A., & Babandako, A. Y. (2011). An evaluation of staff motivation, dissatisfaction and job performance in an academic setting. *Australian Journal of Business and Management Research*, 1(9), 1 – 13.
- Mehrad, A., Hamsan, H. H. B., & Redzuan, M., & Abdullah, H. (2015). The role of job satisfaction among Academic Staff at University. *Proceeding of the 3rd Global Summit on Education (GSE), 9th – 10th March, Kuala Lumpur, Malaysia*. 572 – 577.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualisation of organisational commitment. *Human Resource Management Review*, 1, 61 – 89.
- Meyer, J. P., & Allen, N. J. (2004). *TCM employee commitment survey: Academic users guide*. University of Western Ontario.
- Omoankhanlen, J. A., Oloda, O. F., & Ajiienka, M. F. (2014). Employee job satisfaction and organisational commitment in Nigeria manufacturing organisations. *European Journal of Business and Management*, 6(25), 83 – 95.
- Osakwe, R. N. (2014). Factors affecting motivation and job satisfaction of Academic Staff of Universities in South-South geopolitical zone of Nigeria. *International Education Studies*, 7(7), 43 – 51.





- Saliu, A. Y., Gbadeyan, R. A., & Olujide, J. O. (2015). Organisational commitment and job satisfaction of security operatives in selected Tertiary Institutions in Kwara State. *Asia Pacific Journal of Multidisciplinary Research*, 3(4), 43 – 49.
- Salkind, N. J. (2012). *Exploring research* (8th ed.). Boston: Pearson Education, Inc.
- Singh, P., & Loncar, N. (2010). Pay satisfaction, job satisfaction and turnover intent. *Industrial Relations*, 65(3), 470 – 490.
- Tekin, M., Kayacan, E., & Bektaş, H. (2014). Organisational commitment: An empirical investigation of scholars in Turkish public Universities. *Ekonometri ve İstatistik Sayı*, 21, 69 – 80.
- Umaru, R. I., & Ombugus, D. A. (2017). Determinants of job satisfaction of Colleges of Education Lecturers: A study of Nasarawa State College of Education, Akwanga. *Asian Business Research Journal*, 2(1), 8 – 13. DOI: 10.20448/journal.518.2017.21.8.13
- Unutmaz, S. (2014). *Factors affecting job satisfaction of employees in a public institution*. Master thesis, Middle East Technical University.
- Vandenberghe, C. & Tremblay, M. (2008). The role of pay satisfaction and organisational commitment in turnover intentions: A two-sample study. *Journal of Business Psychology*, 22, 275 – 286. DOI 10.1007/s10869-008-9063-3
- Williams, M. L., McDaniel, M. A., & Nguyen, N. T. (2006). A meta-analysis of the antecedents and consequences of pay level satisfaction. *Journal of Applied Psychology*, 91(2), 392 – 413. DOI: 10.1037/0021-9010.91.2.392
- Yousef, D. A. (2017). Organisational commitment, job satisfaction and attitudes toward organisational change: A study in the Local Government. *International Journal of Public Administration*, 40(1), 77 – 88.
- Zaman, S., Mahmud, M. L., & Jahan, A. (2014). Job satisfaction of University teachers: A study on private Universities in Bangladesh. *International Journal of Economics, Commerce and Management*, 2(10), 1 – 13.





## EFFECT OF FIRM FINANCIAL DETERMINANTS ON STOCK RETURN OF LISTED HEALTH CARE FIRMS IN NIGERIA

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### Abstract

*The study ascertained the effect of firm financial determinants of stock return of listed health care firms in Nigeria from 2010-2019. The study adopts ordinary least square for the analysis and the result shows that earnings per share and market value has positive but insignificant effect on stock return of health care firms in Nigeria, asset growth has negative insignificant effect on stock return while return on equity has positive significant effect on stock return of health care firms in Nigeria. This signifies that increase in return on equity will increase stock return. This could be as a result of more investment by potential investors. From the findings, the study concludes that financial indicators had significantly affected stock return of health care firms as evident from the overall model of the study. The study therefore recommends that investors should consider return on equity and other relevant ratios of the companies and movement in these ratios in selecting a resilient portfolio to invest. Also, the management of health care firms should strive to improve the financial performance in order to maximize the returns of their firms.*

**Keywords:** Financial Determinant, Stock Return

### 1. Introduction

Corporate organisations exist for the sole reason of creating value to stakeholders, especially shareholders. For this reason, firms that are able to create value are rewarded by the market through generation of profit and operating cash flow that finally accrues to shareholder (Stewart, 2004). Pandey (2005) argued that profit making is among the major objectives of a firm. Thus, shareholder's wealth is mainly influenced by growth in sales, improvement in share price and profit margin, capital investment decisions and capital structure decisions.

Expectations of investors in making investment are to acquire investment return commensurate with the specific risks that have been taken into account. Financial indicators of a firm measures how successful the firm is and how it will be utilised as a benchmark for the investors to invest their funds. High performance contributes to an increase in the stock market price since investors will respond positively to such signs.



Stock price represents the value of the firm and therefore, an increase in stock market price will indicate an increase in a firm's value (Sudiyatno, Puspitasari & Kartika, 2012).

An efficient capital market is characterised by one in which security prices adjust rapidly to the arrival of new information. Therefore, the current prices of securities reflect all information about the security. Championed by Fama (1970), the semi strong form of efficient market hypothesis states that stock prices must contain all relevant information including publicly available information. This has important implications for policy-makers and the stock-broking industry alike. According to Horrigan (1995), the most significant source that can give discernibility to investors about the company is the financial statement and the ratios that play a significant role in the market over five years or more. Today the prediction of stock returns has been very important from the investor's point of view.

Because investors' goal in the stock investment is to get return, then the investor or prospective investor needs to select the stock to be bought by considering the risk and return factor. To estimate the potential return, the investors make fundamental stock analysis and technical stock analysis. The financial statements are intended to provide their users with relevant information about the entity which is being reported. Such information should be useful to existing and potential investors, creditors and other stakeholders when making a decision regarding the provision of funds (Accounting Pronouncements Committee, 2012). Generally speaking, this decision is based on the premise that financial information is used to estimate profits, cash flows and stock returns. Thus, it is implicitly assumed that accounting assists the projections of future events and evaluations regarding the firm's risk, performance and value (Lewellen, 2010).

Theoretically, it is reasonable to expect good financial performance to affect equity securities market pricing and yields (premium returns). This is because shareholder wealth is maximised through the enhancement of the share prices of the companies targeted by the investors (Opiyo, Ngugi & Rasowo, 2014). Studies have explored links between firm characteristics and stock returns, for example, the capital asset pricing model of Sharpe (1964) explains stock returns as a function of stocks systematic risk using the beta coefficient. Some firm characteristics have been shown to have a strong ability to explain and forecast stock returns. Fama and French (1992) Size and Market-to-Book have been found to be important measures in explaining cross sectional stock returns. Banz (1981) provides empirical evidence to show that on average, small-size firms yield higher stock returns than large-size firms.

Most of the studies are more concerned about policy making; that is why they concentrated more on the macroeconomic variables determinants of stock return. However, increase in firm specific financial variables tends to show performance of the companies most especially increase in the share prices which have a serious effect on the investment decision by potential investors. Other literatures were unable to capture the specific



variables that this study used, which are EPS, Asset growth, Return on equity and Market value. These studies among others are Narayan and Reddy (2018), Obala and Olweny (2018), Ngunjiri (2016), Issah and Ngmenipuo (2015), Wijesundera, Weerasinghe, Krishna, Gunawardena and Peiris (2015), Nurah and Ghassan (2016), Taani and Banykhaled (2011), and Dadrasmoghadam and Akbari (2015). It is based on this that the study examined effect of firm financial determinants and stock return. Based on the objective of the study, the hypotheses centered on earnings per share, asset growth, return on equity and market value has no significant effect on share returns of listed Health care firms in Nigeria.

The remaining part of the study is structured thus: section two covers the literature review; section three covers the methodology used in the study while result and discussion was carried out in section four and section five gives the conclusion and recommendations.

## 2. Literature Review

### *Firm Financial Determinants*

A ratio expresses a mathematical relationship between two quantities (Babalola & Abiola, 2013). Financial ratios are used to compare various figures from financial statements in order to gain information about company's overall performance. Ratio analysis is defined as systematic use of ratios to interpret the financial statements so that the strengths and weaknesses of a firm as well as its historical performance and current financial position can be determined (Sahu & Charan, 2013). Information required for ratio analysis is derived from financial statements and some ratios often link accounts from different financial statements such as balance sheet and income statement. Financial ratios can be interpreted as hints, indicators or red flags concerning notable associations between variables used to assess the company's performance. Shareholder value creation ultimately requires positive results in all these areas which will bring about favorable cash flow patterns exceeding the company's cost of capital (Helfert, 2001).

Financial ratio analysis can be used in two different but equally useful ways. It can be used to explore current state of the company in comparison to its past performance, in other words, it tracks financial performance over time. Comparing current performance to past performance is very useful as it enables a market participant to identify issues that need fixing. Moreover, a manager can discover potential problems that can be avoided. By making trend-analysis which compares a specific ratio over years, it is possible to evaluate how a company is performing over time and whether it has improved its financial health or not. In trend-analysis a ratio serves as a red flag for worrying problems or a benchmark for performance measurement. Firm performance can also be measured by making comparative analysis. A ratio can be compared with industry average to find out whether a firm is lagging in performance or doing well. Financial ratio analysis can be used both by internal and external parties. External users can be creditors, security analysts, potential investors, competitors and others. Internal users such as managers use ratio analysis to



monitor company’s performance and to assess its strengths and weaknesses (Kharatyan, Nunes & Lopes, i2015).

*Stock Return*

Stock return is the return of the results obtained from an investment. Stock return is divided into return realization and expected return. Return realization is a return that has occurred and is calculated based on historical data. Return realization is important because it is used as one measure of performance of the company. Historical returns are also useful as a basis for determining the expected return in the future. Return expectations of a return can be expected in the future investors (Jogianto, 2000). Unlike the return realization that nature has occurred, its expected return has not occurred. Stock return can be obtained from the form of dividends and capital gain/loss. Capital gain/loss is the difference more or less than stocks. Dividends are used to measure the performance of stocks based on dividend distribution, the greater the dividend the stock more attractive to investors (Shabib-ul-hasan, Farooq & Muddassir, 2015). The higher the stock price indicates that the stock is more attractive to investors because the higher the stock price will result in a greater capital gain. Return realization used in this study is the capital gain/loss is often also called the actual return. According to Jogianto (2000), the magnitude accrual can return to the formula as follows:

$$R_{it} = \frac{(P_t - P_{t-1})}{P_{t-1}} \times 100\% \dots\dots\dots 1$$

$R_{it}$  = The level of profit share  $i$  in period  $t$ ;

$P_{it}$  = The closing price of stock  $i$  in iperiod  $it$  (period closing/last);

$P_{t-1}$  = The closing price of stock  $i$  in the previous period.

Price-level indicates the level of current market price relative to various accounting numbers. These measures indicate whether a stock is selling cheap or dear. Factors representing cheapness in price include contemporary market price relative to earnings per share, cash flow-per-share, dividends-per-share, book value-per-share, and sales-per share (Osisanwo & Atanda, 2012). Price level also encompass price history (past share prices) as there are intermediate term inertia patterns in stock returns, with stocks that have done well (poorly) in the previous six to 12 months having good (poor) future prospects (Haugen & Baker, 1996).

*Firm Financial Determinants and Stock Return*

Narayan and Reddy (2018) examined the impact of traditional (ROA, ROE, ROIC) and modern performance measures (EVA) on stock returns and investigate if there exists any relationship between the said variables in this dynamic world. The data consist of 408 companies listed in the Nifty 500 Index for the period 2002 to 2017 and further sorted to 18 sectors in India. The data relating to EVA, ROA, ROE, ROIC was obtained from



Bloomberg Terminal and stock prices for the companies were extracted from CMIE Prowess database. The study implemented Panel Data Analysis (REM and FEM Model) and Correlation Analysis to get the results. The results indicated a low negative relationship of EVA, ROA, ROE and ROIC with Stock Returns, with the evidence of significant relationship only in case of ROE. REM suggested that the impact of modern performance measures have been more on Stock Returns than traditional measures.

Obala and Olweny (2018) determined the relationship between financial performance and stock returns. Data was obtained from 10 listed banks in the Nairobi Securities Exchange for the period between the year 2011 and 2015. Parameters investigated against stock returns include profitability (ROA), leverage (Debt to Equity Ratio), liquidity (Current Ratio) and firm's growth (Asset growth ratio). The multiple Regression analysis demonstrated that Profitability (ROA), Liquidity (Current ratio) and Firm's Growth (Asset growth ratio) hold a moderate but positive influence on stock returns. However, the relationship between Leverage (Debt to equity ratio) and stock returns was found to be negative and insignificant.

Ngunjiri (2016) examined the relationship between financial performance and stock returns for 67 firms listed at the Nairobi Securities Exchange (NSE) from 2011 to 2015. The study used a descriptive research design and the study employed Ordinary Least Square (OLS) Regression method to estimate the market model parameters (to be used in determining residual effect). The study also adopted multivariate correlation analysis to establish the correlation between financial performance and stock return. The correlation results found a significant positive correlation between financial performance, share price levels and stock returns but found an insignificant positive correlation between dividend payout ratio and stock returns of the listed firms. The results of the regression coefficients found an insignificant positive relationship between financial performance, share price levels and dividend payout (DPR) and stock returns of firms listed at the NSE. The study concluded that there is a direct relationship between financial performance and stock returns hence an increase in financial performance of the listed firms increases stock returns of firms listed at the NSE. The study also concluded that shares prices and dividend payout have a direct impact on stock returns hence an increase in shares prices and dividend payout increases stock returns of listed firms.

Issah (2015) conducted a study on the relationship between profitability ratios and market share prices of publicly traded banking financial institutions in Ghana for the period 2009 to 2013. He concluded that ROA, ROE and ROI have significant linear relationship with market share price with ROE contributing more than ROA.

Wijesundera, Weerasinghe, Krishna, Gunawardena and Peiris (2015) assessed correlation between financial ratios and the predictability of stock returns for companies listed on the Colombo Stock Exchange. The study applies ordinary least squares (OLS) techniques to estimate the predictive regressions in form of simple and multiple models of panel data



sets. For the current study, 60 listed companies were selected and 10 years of data has been analysed from 2004 to 2013. The results highlighted that ROE, EPS and MV/BV have a significant positive relationship with the stock return which is followed by a simple equation to predict the future stock returns.

Nurah and Ghassan (2016) examined the relationship between financial indicators such as profitability and leverage measures and stock return in Amman Stock Exchange, Jordan. The results showed that (GPM), (ROA), (ROE), and (EPS) affect stock return significantly while NPM and leverage measures (DR, DER and ICR) do not have a significant relationship with stock return.

Anwaar (2016) conducted a study to determine the effect of firm performance on stock returns, evidence from the firms listed on FTSE-100 Index, London Stock Exchange over the period 2005 to 2014. According to the results, net profit margin and return on assets have significant positive effect on stock returns while earnings per share has significant negative effect on stock returns.

Taani and Banykhaled (2011) discovered that there is a positive and significant relationship in between market value, debt ratio, operating cash flows and return on equity with earnings per share following a study on the effect of ratios, firm size and cash flow from operating activities on EPS. However, a relationship between firm size and EPS was not observed.

Dadrasmoghadam and Akbari (2015) examined the relationship between financial ratios and stock prices in the food groups, sugar, agricultural machinery and equipment and related services to companies listed on the Stock Exchange from 1999 to 2009. Financial variables including liquidity ratios (current ratio), the activity of (asset turnover), the profitability (rate of return on assets and return on equity), financial leverage (debt) and equity prices is agriculture-related industries. The results of the financial ratio, stock prices depend on Agriculture indicates that the debt ratio, current ratio and return on assets ratio have a significant effect on stock prices. On the other hand, the profitability ratio (rate of return on equity) positively and significantly related to stock exchange agriculture of industry. Finally, the significant negative relationship with stock market activity in the stock industries of agriculture.

Shabib-ul-hasan, Farooq and Muddassir (2015) examined which financial variable explains stock returns better than the others. In the study, four financial variables debt to equity, book to market value of equity, firm size and sale to price are used. The study includes 26 companies from pharmaceutical and chemical sector in Pakistan and listed on the Karachi Stock Exchange. The regression technique is used to see the relationship between stock returns and financial variables. The study found that the best indicator for stock returns in Pakistani stock market is book to market value of equity for the studied period 2000-2009.



Kharatyan, Nunes and Lopes (2015) investigated factors that affect return on equity of a sample of 90 non-financial companies of NASDAQ-100 index. The ordinary least squares method was used for the analysis. The extended DuPont model's components are considered as the primary factors affecting ROE. In addition, other ratios/indicators such as price to earnings, price to book and current are also incorporated. Consequently, the study uses eight ratios/indicators that are believed to have impact on ROE. According to the findings, the most relevant ratios that determine ROE are tax burden, interest burden, operating margin, asset turnover and financial leverage.

Takamatsu and Fávero (2019) evaluate the influence of the informational environment on the relevance of accounting information on stock return from 2004 to 2013. The sample consisted of publicly traded companies from 20 countries classified as emerging by Standard & Poors. It was observed that the financial variable has influence on stock return, except for the price-to-book variable and the asset change variable. The inclusion of variables related to the accounting informational environment offered evidence that the more-opaque the accounting environment in the country, the lesser the ability of the profits to portray the variations of stock returns. The variable that captured the adoption of international standards was consistent with expectations, i.e. the adoption of international standards would increase the quality of accounting information, showing a positive signal. Moreover, the variable aggressiveness of the earnings was statistically significant and negative, consistent with the literature.

**3. Methodology**

The study adopts ex-post facto research design which shows the effect of financial determinants on stock return from 2010-2019. Secondary data were used and specifically, data were sourced from the health care annual report. They comprised Fidson Healthcare Plc; Glaxo Smithkline Consumer Nig. Plc.; May & Baker Nigeria Plc.; Morison Industries Plc.; Neimeth International Pharmaceuticals Plc.; Pharma-Deko Plc.; Union Diagnostic & Clinical Services Plc., and, Ekocorp Plc. The study conducted pre and post estimation test of descriptive statistics, correlation matrix, variance inflation factor which aid the study to assess the multicollinearity between the independent variables. The study used panel multiple regression and ordinary least square was used for the analysis. The linear regression equation for the study is specified as:

$$SR_{it} = \alpha + \beta_1 EPS_{it} + \beta_2 AG_{it} + \beta_3 ROE_{it} + \beta_4 MV_{it} + \mu_{it} \dots\dots\dots 2$$

Where: *SR* = Stock Return; *EPS* = Earnings per share; *AG* = Asset growth; *ROE* = Return on equity; *MV* = Market value; *t* = time frame;  $\alpha$  = Constant Term;  $\beta_1$ -  $\beta_4$ = Beta Coefficient;  $\mu$  = error term





*Variables Measurement*

Table 1: Variable measurement

Variable Name	Symbol	Description
Stock Return	SR	A price of a single share of a company's stock at year end
Earnings per share	EPS	Net Income After Tax/Total Outstanding Shares; Or annual eps
Asset growth	AG	Annual percentage change in total assets
Return on Equity	ROE	Net Income / Shareholders' equity
Market Value	MV	Market Value of equity – Book value of equity

**4. Result**

Table 2: Descriptive Statistics

Variable	Observation	Mean	Std. Dev.	Minimum	Maximum
st	80	7.0411	12.4784	0.17	68
Eps	80	17.1507	27.9420	0.05	199
Ag	80	3.2500	1.6600	-59093	1.0600
Roe	80	0.5543	1.4605	0.0050	9.5857
Mv	80	1.4900	2.7100	3386447	9.8700

*Source: Generated from Company's annual report, 2020*

From the summary of the variables used in the study, stock return has a maximum return in the market of 68.00000 and 0.17 as the minimum return within the period of this study. The mean of stock return of health care firms in Nigeria is 7.041125 while the standard deviation as a deviation from the mean is 12.47848. In like manner, the maximum yield attributable to earnings of the shareholders of health care firms in Nigeria is 19.90000 while it has a lowest increase by 0.050000. The mean is 1.715075 while the deviation from the mean is 27.94202.

The asset growth of the company has increased over the ten years period with a maximum and minimum value of 1.06E+10 and -59093.00. In the same way, the mean of asset growth is 325370135. The firms have return on equity on shareholders with a maximum of 9.585793 and the minimum of 0.005062 while the mean is 0.554318. The maximum market value of health care is 98657614243 and minimum of 3386447.

Table 3: Correlation Matrix

	SR	EPS	AG	ROE	MV
SR	1.000000				
EPS	0.224994	1.000000			
AG	-0.086428	-0.061037	1.000000		
ROE	0.515814	-0.032944	-0.022649	1.000000	
MV	0.395364	0.098595	-0.061815	0.290377	1.000000

*Source: Authors' Computation, 2020*





The relationship between the variables shows that firm financial determinants used in the study has both positive and negative relationships with stock return. Earnings per share, return on equity and market value have positive correlation with stock return while asset growth has negative correlation with stock return. However, the correlation is within the threshold that there is no correlation problem with the variables.

Table 4: Summary of Regression Result

Variables	Coefficient	t- statistics	P-Value	VIF
EPS	0.028870	1.056319	0.2946	1.0172
AG	-3.84E-11	-0.088766	0.9295	1.0069
ROE	1.649771	3.098542	0.0028	1.0967
MV	4.46E-11	1.560964	0.1232	1.1091
C	4.977605	4.965783	0.0000	
R <sup>2</sup>	0.817850			
F-statistics	27.75621			
F-significance	0.000000			
Hausman P-Value	0.0005			

Source: Authors' Computation, 2020

From the p-value of Hausman specification, fixed effect model is most appropriate because it is less than 5% level of significance; hence, it is used to explain the effect of financial determinants on stock return. It has been discovered that the tolerance level relevant to all variables appears to be below 10, testifying that no collinearity assumption is well confirmed. Besides, on calculating the VIF values, the figures reveal that they prove to fall below the threshold of 10 with regard to all variables. These results allow us to confirm the absence of multi collinearity problem concerning multiple regression models.

The result shows that earnings per share has positive but insignificant effect on stock return of health care firms in Nigeria while asset growth has negative insignificant effect on stock return. Also, return on equity has positive significant effect on stock return of health care firms in Nigeria. This signifies that increase in return on equity by one will increase stock return by 0.0028. This could be as a result of more investment by potential investors. Further, the result signifies a positive but insignificant effect of market value on stock return because it has a p-value greater than 5% level of confidence. The finding of the study is supported by the findings of Narayan and Reddy (2018), Obala and Olweny (2018), Ngunjiri (2016), Issah and Ngmenipuo (2015), Taani and Banykhaled (2011), and Dadrasmoghadam and Akbari (2015).

The study ascertained that financial determinants used explained 81% variation on stock return while the remaining variation is explained by other variables not included in the model. In the same light, the model is fit with f-statistics less than 5% level of confidence.



## 5. Conclusions and Recommendations

The study ascertained the effect of firm financial determinants of stock return of listed health care firms in Nigeria shows that earnings per share and market value has positive but insignificant effect on stock return of health care firms in Nigeria, asset growth has negative insignificant effect on stock return while return on equity has positive significant effect on stock return of health care firms in Nigeria. This signifies that increase in return on equity will increase stock return. This could be as a result of more investment by potential investors. The study concludes that financial indicators of companies are very vital to affect changes on stock return over a period of time. The study therefore recommends that investors should consider these ratios of the companies and movement in these ratios in selecting a resilient portfolio to invest. Also, the management of health care firms should strive to improve the financial performance in order to maximize the returns of their firms.

## References

- Accounting Pronouncements Committee (2012). CPC00: Pronunciamento Conceitual Básico–Estrutura Conceitual para Elaboração e Apresentação das Demonstrações Contábeis. Aprovado pela CVM por meio a Deliberação, 539. Retrieved from [www.cvm.gov.br/noticias/arquivos/2008/20080314-3.html](http://www.cvm.gov.br/noticias/arquivos/2008/20080314-3.html)
- Alexakis, C., Patra, T., & Poshakwale, S. (2010). Predictability of Stock Returns using Financial Statement Information: Evidence on Semi-strong Efficiency of Emerging Greek Stock Market. *Applied Financial Economics*, 20(16), 1321–1326.
- Anhar, M. (2015). Indicators of Company Performance, Investors' Expectation and Investment Risk in Predicting Stock Return at Indonesia Stock Exchange. *Journal of Resources Development and Management*, 5, 41–52.
- Anwaar, M. (2016). Impact of Firms' Performance on Stock Returns (Evidence from Listed Companies of FTSE-100 Index London, UK). *Global Journal of Management and Business Research*, 16(1), 30-39.
- Babalola Y. A., & Abiola F.R (2013). Financial ratio analysis of firms: A tool for decision making. *International Journal of Management Sciences*, 1(4), 132-137.
- Banz, R. W. (1981). The Relationship between Return and Market Value of Common Stock. *Journal of Financial Economics*, 9(1), 3–18.
- Chashmi, N.A., & Fadaee, M. (2016). Financial Performance and Growth Opportunities on Success or Failure of Companies: Evidence from Tehran Stock Exchange. *Journal of Accounting & Marketing*, 5(2), 2–5. <https://doi.org/10.4172/2168-9601.1000166>
- Dadrasmoghadam, A., & Akbari, S. M. R. (2015). Relationship between Financial Ratios in the Stock Prices of Agriculture-Related Companies Accepted on the Stock Exchange for Iran. *Research journal of fisheries and hydrobiology*, 10(9), 586–591.
- Fama E (1970). Efficient capital markets: a review of theory and empirical Work, *J. Finance*, 25: 383-417.



- Fama, E. F., & French, K. R. (1992). The cross- section of expected stock returns. *The Journal of Finance*, 47(2), 427-465.
- Haugen, R. A., & Baker, N. L. (1996). Commonality in the determinants of expected stock returns. *Journal of Financial Economics*, 41 (3), 401-439
- Helfert, E. A. (2001). *Financial analysis: Tools and techniques: A guide for managers*. Boston: McGraw-Hill.
- Heryanto, M. (2016). Effect of Liquidity and Profitability to Bank Stock Return in Indonesia Stock Exchange. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 6(3), 131-138.
- Horrigan, J. (1995). The Determination of Long-Term Credit Standing with Financial Ratios. *Journal of International Accounting*, 4, 44-62.
- Issah, O., & Ngmenipuo, I. M. (2015). An empirical study of the relationship between profitability ratios and market share price of publicly traded banking financial institutions in Ghana. *International Journal of Economics, Commerce and Management*, 3(12), 27-42.
- Jogiyanto (2000). *Analisis Sekuritas Dan Analisis Portofolio*. Yogyakarta: BPF
- Kai, K. De, Bin, I., & Rahman, A. (2018). The Impact of Financial Indicators towards Stock Returns of Finance Companies Listed on Bursa Malaysia. 8(3), 128-140.
- Kharatyan, D., Nunes, A., & Lopes, J. C. (2015). Financial ratios and indicators that determine return on equity.
- Lewellen, J. (2010). Accounting anomalies and fundamental analysis: An alternative view. *Journal of Accounting and Economics*, 50, 455-466.
- Macharia, P. I., & Gatuhi, S. K. (2013). Effect of Financial Performance Indicators on Market Price of Shares in Commercial Banks of Kenya. *International Journal of Management & Business Studies*, 9519, 57-60.
- Mirza, S. A., & Javed, A. (2013). Determinants of financial performance of a firm: Case of Pakistani stock market. *Journal of Economics and International Finance*, 5(2), 43-52.
- Narayan, P., & Reddy, Y. V. (2018). Impact of financial performance indicators on stock returns: Evidence from India. *International Journal of Business and Society*, 19 (3), 762-780.
- Ngunjiri, N. (2016). Relationship between firms' financial performance and stock return for firms listed at Nairobi securities exchange a research project submitted in partial fulfillment of the requirements for the award of the degree of master of business administration.
- Nurah, M. A., & Ghassan, S. O. (2016). The Relationship between the Stock Return and Financial Indicators (Profitability, Leverage): An Empirical Study on Manufacturing Companies Listed in Amman Stock Exchange. *Journal of Social Sciences*, 5(3), 408-424.
- Obala, F., & Olweny, T. (2018). Financial performance and stock returns among listed banks in Kenya. *International Journal of Economics, Commerce and Management*, VI(5), 292-300.



- Oliveira, J. C. T. & Taques, F. H. (2016). Relation between Share Price and Financial Indicators in The Brazilian Stock Market. *ACRN Oxford Journal of Finance and Risk Perspectives*, 5 (3): 30- 45.
- Opiyo, M. A., Ngugi, C. C., & Rasowo, J. (2014). Combined effects of stocking density and background colour on growth performance and survival of Nile tilapia (*Oreochromis niloticus*, L.) fry reared in aquaria. *Journal of Fisheries Sciences.com*, 8(3): 228-237
- Osisanwo, B. G. & Atanda, A. A. (2012). Determinants of Stock Market Returns in Nigeria: A Time Series Analysis. *African Journal of Scientific Research*, 9(1), 478 – 496.
- Pandey, M. I. (2005). *Financial Management*. (9th Ed.). Vikas Publishing House, India
- Sahu, P. A., & Charan, P. (2013). Ratio Analysis is an Instrument—for Decision Making-A Study. *Asian Pacific Journal of Research*, 1(VIII), 36-41.
- Shabib-ul-hasan, S., Farooq, S., & Muddassir, M. (2015). Stock Returns Indicators: Debt to Equity, Book to Market, Firm Size and Sales to Price. *Journal of Poverty, Investment and Development*, 16.
- Sharp, W. F. (1964). Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk. *Journal of Finance*, 19, 425-442.
- Sharpe, W.F. (1994). A simplified model for portfolio and analysis, *Journal of management science*, 29, 277 – 293.
- Sudiyatno, B., Puspitasari, E., & Kartika, A. (2012). The Company's Policy, Firm performance, and Firm Value: An Empirical Research on Indonesia Stock Exchange. *American International Journal of Contemporary Research*, 2 (12), 30-40.
- Taani, K., & Banykhaled, M. H. H. (2011). The effect of financial ratios, firm size and cash flows from operating activities on earnings per share:(an applied study: on Jordanian industrial sector). *International Journal of Social Sciences and Humanity Studies*, 3(1), 1309-8063.
- Takamatsu, R. T., & Fávero, L. P.L. (2019). Financial indicators, informational environment of emerging markets and stock returns. *RAUSP Management Journal*, 54(3), 253–268. <https://doi.org/10.1108/RAUSP-10-2018-0102>.
- Uwubanmwun, A., & Eghosa, I. L. (2015). Inflation Rate and Stock Returns: Evidence from the Nigerian Stock Market. 6(11), 155–167.
- Vintilă, G., & Nenu, E. A. (2015). An Analysis of Determinants of Corporate Financial Performance: Evidence from the Bucharest Stock Exchange Listed Companies. *International Journal of Economics and Financial Issues*, 5(3), 732–739.
- Wijesundera, A. A. V. I., Weerasinghe, D. A. S., Krishna, T. P. C. R., Gunawardena, M. M. D., & Peiris, H. R. I. (2015). Predictability of Stock Returns Using Financial Ratios: Empirical Evidence from Colombo Stock Exchange. *Kelaniya Journal of Management*, 4(2), 44–56.



## AN ASSESSMENT OF HOUSEHOLD SOLID WASTE MANAGEMENT PRACTICES IN KONTAGORA, NIGER STATE

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### Abstract

*This paper examined household solid waste management practices in Kontagora. The paper focused on the types of solid waste generated, their composition and quantity, the methods of solid waste storage and disposal practices, including the capacity of solid waste management agency in Kontagora. Data for the study were obtained from primary and secondary sources. The primary data were collected from a cross-sectional survey of 130 households using well-structured questionnaires. Secondary data were obtained from different published sources. The data obtained were analysed using descriptive statistics. The study found out that the composition and quantity of solid waste generated differ from one household to another according to their socioeconomic characteristics. The solid waste stream comprises biodegradable and non-biodegradable waste. The study also revealed that almost all the household temporarily store their waste before final disposal in open spaces, dump sites, roadsides, and drainages among others. The rate of generation of these waste have now defied all efforts of the waste management agency in Kontagora, due to inadequate equipment, funding, trained personnel, etc. The study recommends the promotion of integrated sustainable solid waste management (ISWM) procedures and community participation.*

**Keywords:** Household, Solid waste, Management, Community

### 1. Introduction

Human activities naturally result in the generation of waste in solid, liquid or gaseous forms. This is an unavoidable event in the household day-to-day living. The wastes



generated must be disposed of properly to preserve environmental quality, human health and natural resources. However the inability of most households and communities to effectively manage waste generated has played a significant role in the increasing extant environmental and health problems facing most societies today (Ike, Ezeibe, Anijiofor & Daud, 2018).

Solid waste management in Nigeria is characterised by inefficient collection methods, insufficient coverage of the collection system and improper disposal. The waste generation has consistently expanded both in volume and complexity. This is due to the rapid increase in population over the years, urbanisation, economic activities, industrialisation, technology advancements, changing lifestyles and consumption patterns, among others. Sadly, these developments have not been matched by adequate provisions of infrastructural facilities and equipment, including funding and personnel to sustainably manage the ever growing quantum of waste (Agbesola, 2013).

Household Solid Waste (HSW), also known as domestic or residential waste refers to garbage and rubbish created or caused to be created in the day-to-day living of a residential dwelling unit. Household solid waste can be classified into different groups such as hazardous and non-hazardous waste; biodegradable and non-biodegradable waste (Karim & Nawshin, 2012).

According to Babalola, Ishaku, Busu & Majid (2010), household solid waste (HSW) has both direct and indirect effects on environment and human welfare. Direct effects range from the damage of materials and loss of aesthetic importance to the impairment of human health, thus creating significant socioeconomic impacts. Indirect effects are mainly long-term effects which range from change in ecosystem structure and environmental degradation which in turn will affect socio-economy and the sustainability of the region. This has brought a new challenge to the local government authorities especially in dealing with the issue of municipal solid waste (MSW) disposal, particularly domestic household wastes. Thus, it is a common feature to see all manners of wastes clog drainages, roadside, market places, vacant plots, water bodies and uncompleted building among others. This has in many cases resulted environmental hazards which facilitate the spread of communicable diseases (Benedine, Robert & Abbas, 2011). This paper therefore, takes a critical look into household solid waste management practices with a view to analyse some of the strengths and deficiencies in the current solid waste management practices. The objectives of this study is to identify the types of household solid waste composition and quantity generated; examine the household methods of solid waste storage and disposal practices; and to investigate the capacity of solid waste management agency.

## **2. Literature Review**

Solid wastes constitute a growing problem and have gained increased political awareness over recent years. The amount of solid waste generated in the world is steadily increasing and every government in the world is currently focusing on methods to approach the



challenges posed by solid waste management (Amuda, Adebisi, Jimoda & Alade, 2014). It is estimated that more than 3.5 billion or more than 52% of the world population does not have access to the most elementary waste management services like sound solid waste collection and removal out of the residential areas and at least a controlled disposal. In Nigeria waste generation rate is estimated at 0.65-0.95 kg/capita/day which gives an average of 42 million tonnes of wastes generated annually (Babalola et'al, 2010). This is more than half of 62 million tonnes of waste generated in sub-Sahara Africa annually and where and how to channel these wastes becomes a huge problem for the nation (Ike et 'al, 2018).

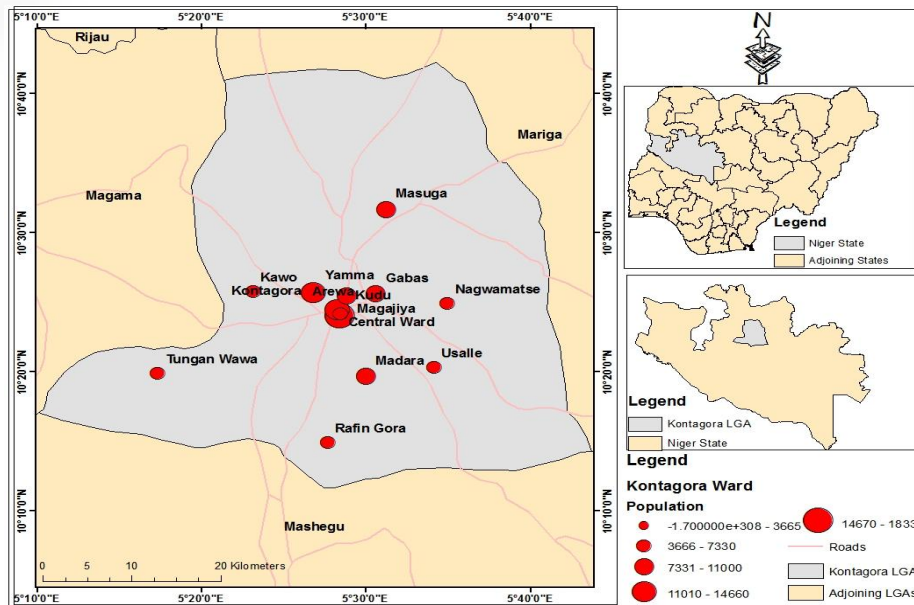
The reasons behind inefficient waste management practice in Nigeria have been well researched. For example, Adeyemi, Olorunfemi & Adewoye (2001) observed that in Nigeria the management of municipal solid waste revolves mainly around open burning, open dumps, land filling, reuse/recycling and waste conversion. Arukwe (2012) added that the only management practice adopted widely throughout Nigeria involves disposal of waste on open dumps. Imam et al. (2009) reported that piles of wastes are dumped by the road side and other open spaces thereby posing environmental risk, with severe health, social and economic implications. These require urgent intervention by concerned Government agencies and related bodies on environmental management to control the increased rate of environmental deterioration as a result of indiscriminate dumping of solid waste.

### **3. Methodology**

#### *Study area*

Kontagora is a major town on the south bank of Kontagora River in north-west Niger State, Nigeria. It is the capital city of the Kontagora Emirate (Figure 1). Its Geographical coordinates are latitude 10°24'1" N and longitude 5°28'11" E in DMS (Degrees Minutes Seconds) and it is situated at an elevation 339 meters above sea level. It covers an area of 13,219 square miles (34,237 square km) in Niger state. Kontagora has a population of 98,754 according to 2006 census making it the 4th biggest city in Niger State. Kontagora is a nodal point for local roads and a collecting point for several agricultural produce such as cotton, groundnuts millet, cowpeas, beans, gum arabic, kola nuts, cattle, goats, chickens and guinea fowl among others. This makes it an epicenter for economic activities. Essentially, all these economic and consumption activities that the people are engaged in create byproducts or waste materials that are socially costly to handle.





Source: Department of Geography F.C.E  
Figure 1: Map of Kontagora LGA

#### Data collection

The data for the study were obtained from primary source. The primary data were collected from cross-sectional survey of 130 households using well-structured questionnaires in combination with some selected Participatory Rural Appraisal Tools (PRA).

A multi stage sampling procedure was employed in selecting the representative households. The first stage involved division of the Local Government Area into the thirteen (13) existing wards. At the second stage, 13 households were randomly selected from each of these wards, making a total of 130 respondents. The third stage was the selection and identification of the household heads interviewed. The result obtained was analysed using descriptive statistics.

#### 4. Results

##### Socio-economic characteristics of the respondents:

Table 1 presents the distribution of the respondents' socio-economic characteristics. It reveals that 60.8% of the household heads were males, while the rest females. Majority (72.3%) of them were married, 18.0% divorced, and 7.7% were widowed. 68.5% were older than 45 years, while only about 5.5% were younger than 35 years. Most of the respondents (74.5%) have larger household sizes in their households with only 3.2% with





less than 5 persons in their household and majority belonging to #10,100 <20,100 and #20,100 <30,100 monthly income groups. Nearly half of the household head (48.5%) had no formal education which implies that they had qur'anic education, a slightly higher number than one quarter 27.7% had only primary education, while only less than one quarter of the respondents had tertiary education. The result indicates variation in respondents' socioeconomic characteristics; this implies that household waste generation differs from one household to another. The finding agrees with the studies of Nwabinye et' al. (2017) and Limbu (2013). They both established that household solid waste generation are closely linked to socio-economic parameters of the households.

**Table 1: Distribution of respondents' socioeconomic characteristics**

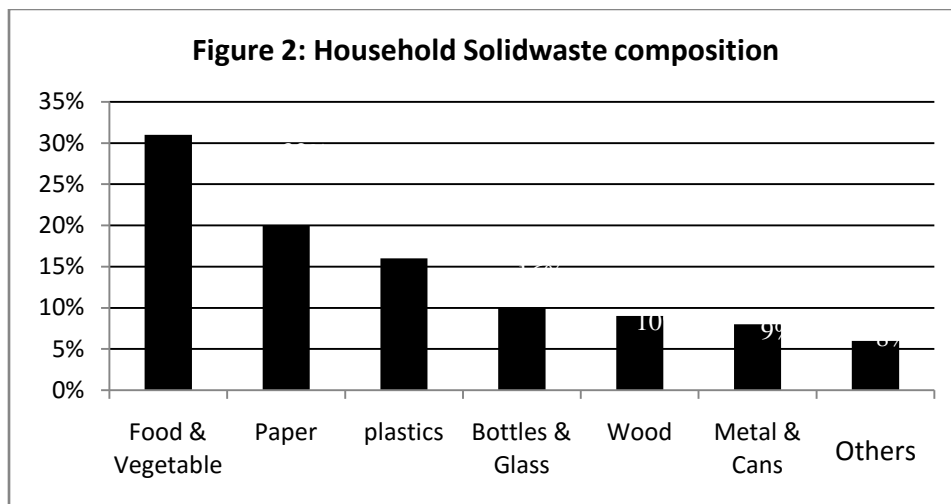
Socio-economic characteristics	Frequency	Percentage
<i>Sex</i>		
Male	79	60.8
Female	51	39.2
<i>Age</i>		
Below 35	5	5.5
35-45	39	30
Above 45	86	64.5
<i>Household Size</i>		
1 – 5	32	24.5
6 -10	88	67.7
Above 10	10	7.7
<i>Education</i>		
No formal education	63	48.5
Primary education	36	27.7
Secondary education	24	18.5
Tertiary education	9	6.9
<i>Marital Status</i>		
Married	94	72.3
Divorced	17	13.0
Widowed	10	7.7
Separated	9	7.0
<i>Occupation</i>		
Farming	60	46.1
Artisan	25	19.2
Trading	30	23.1
Salary earners	15	11.6
<i>Monthly Income (N)</i>		
Below 10,100	8	6.1
#10,100 <20,100	58	44.6
#20,100 <30,100	29	22.4
#30,100 –<40,100	18	13.8
Above 40,100	17	13.1

Sources: Field survey, 2019.

*Household Solid waste composition*



The solid waste composition generated by the respondents in the study area was determined and the finding reveals that household solid waste stream comprises rich organic and easily biodegradable food scraps, vegetables, fruits, leaves and paper as well as inorganic and non biodegradable materials such as plastic, glass, cans including hazardous wastes like pesticides, batteries, ash and discarded medicines. Figure 1 shows that food scraps, and vegetable wastes, plastics and paper constituted the largest components of solid waste generated in the area; amounting to some (31.0%), (20.0%) and (16.0%) of the wastes respectively. Bottles and glasses (10.0%), wood (9.0%), metals and cans constitute about (8.0%), respectively, while other wastes amounted to (6.0%) of the total waste generated. This indicates that household waste composition differs from and household to another and is influenced by several factors such as socio-demographic variables, cultural norms and energy sources among others.



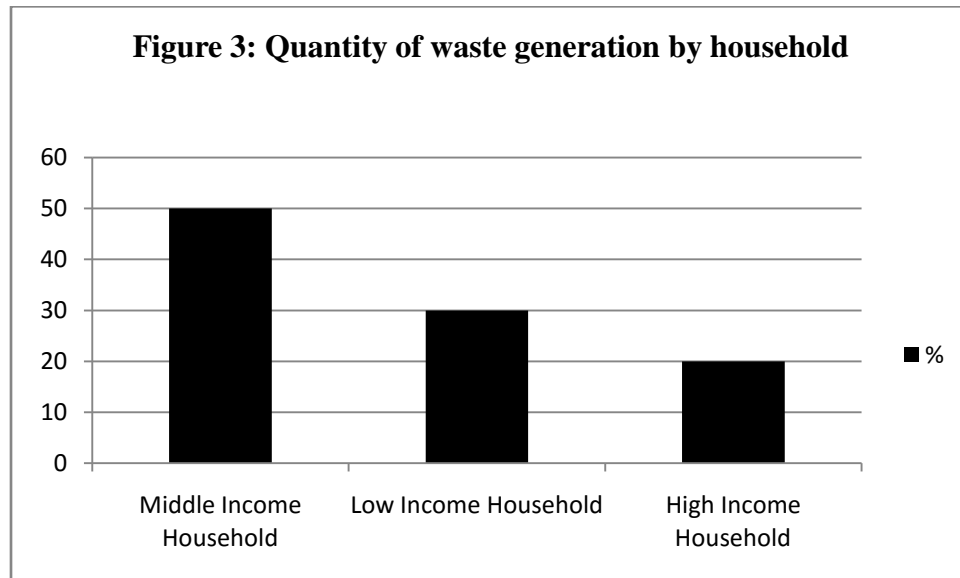
Sources: Field survey, 2019.

#### *Quantities and generation of Household Waste*

Fig. 3 revealed that the quantity of household solid waste generated. A total of approximately 15.0 tons of solid waste was generated over the three weeks period used for the assessment. Half of this total quantity of solid waste emanated from households in the middle income family whilst low- and high-income households contributed 30% and 20% respectively. The greater proportion of waste emanating from middle income households is due to relatively larger household size as compared to low and high income households. The average per capita waste generation rate in the entire area was (0.75kg/capita/day). The finding vindicates the study of Sanko et'al (2012). The correlation coefficient analysis on the various socioeconomic factors of their study indicates that monthly income, average



family size and employment status were the main influential factors in the quantity and composition of solid wastes generated



Sources: Fields survey, 2019

#### *Household Waste Storage and Disposal*

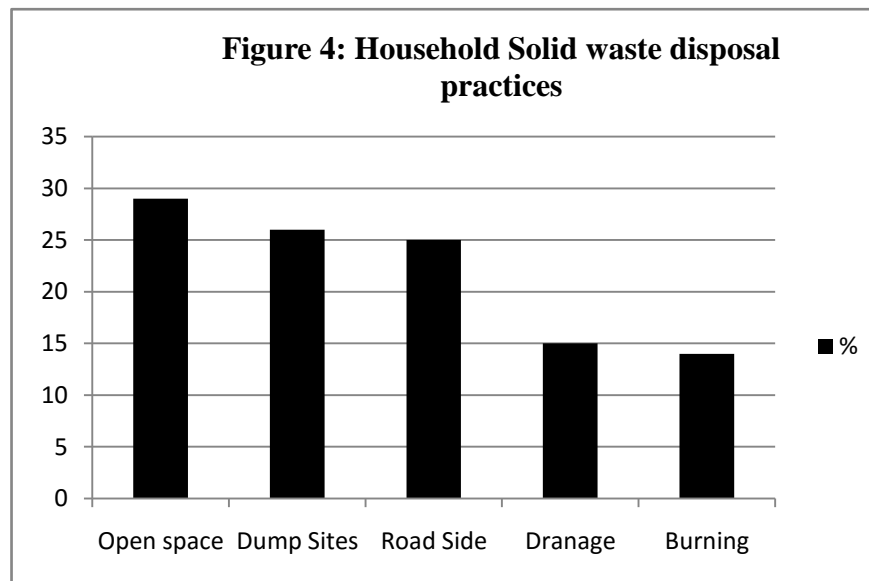
The method adopted by the households for storage and disposal of solid waste are presented in Table 2. The findings revealed that all the waste streams were stored together in either sack; open bucket or containers and plastics bags before final. It also revealed that household solid waste final disposal practice in the area includes a direct dumping in open space, designated dumps sites, roadsides, drainage and burning. It is apparent that majority of the respondents dispose their waste illegally. It is therefore a common feature to see heaps of refuse on our streets, roadside, market places, and vacant plots among others. This could have adverse effects on health, the environment and aesthetics. The finding indicates that the existing waste management practices in the study area are inefficient due to improper management by different households and waste management agency concerned.



Table 2: Waste storage and disposal practices

Variable		Frequency (No)	Percentage (%)
Method of Storage	Open container	42	32
	Sack	57	44
	Plastic bag	31	24
Method of Disposal	Burning	20	15
	Open space	38	29
	Dump sites	32	25
	Drainage	15	12
	Road side	25	19
	<b>Total</b>		<b>130</b>

Sources: Field survey, 2019.



Sources: Fields survey, 2019

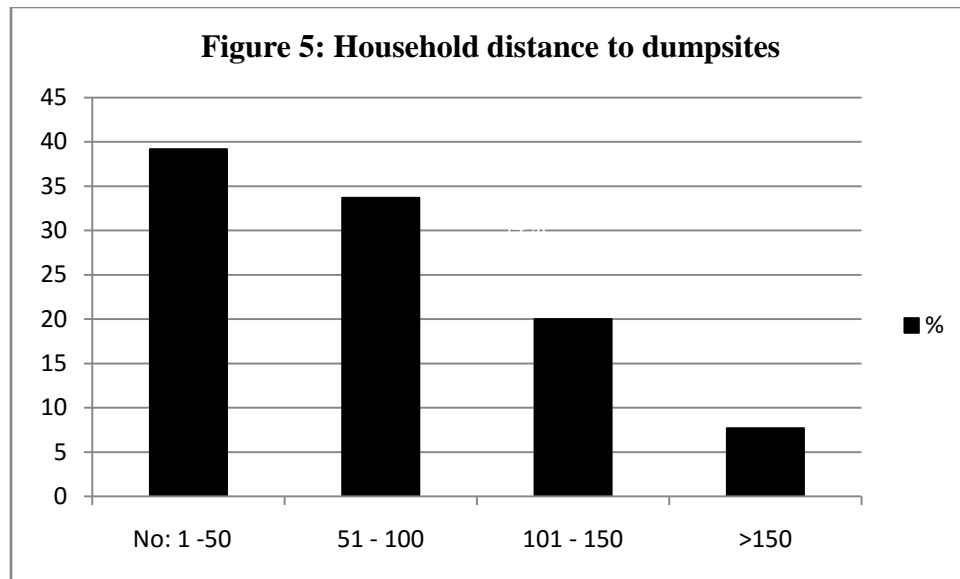
#### Household distance to the dump sites

The study found that there is only one legally designated dump site in Kontagora. However there are several illegal dumpsites and heaps of waste spread indiscriminately which poses serious environmental and health challenges. The result presented in Figure 5. Shows that



distance of households to various disposal points in the study area in meters play significant role in the final disposal of waste.

Almost half of the household have their disposal point located at a distance of 1- 50 meters, 33.7% at a distance of 51 -100meters , 20%at a distance of 101 -150 meters. While only 7.7% at a distance of < 150.It is evident from the result that the farther the designated dump-sites, the lesser the use by the respondents. This further confirmed that majority of the people dispose their waste illegally, they are of the habit of dumping their refuse within a close range to their residence or where they carry out their daily activities. Relating their views on waste disposal, Anyanwu & Adefila (2014) confirmed that the farther the designated dump-sites, the lesser the use by the respondents. This further explains why people tend to disregard the use of designated official dump-sites and create alternative points.



Sources: Fields survey, 2019

#### *The Capacity of Solid Waste Management Agency*

Niger State Environmental protection Agency (NISEPA) is the agency responsible for household solid waste management in Kontagora. The study revealed that the waste management agency was not able to cope with the volume of waste generated in the area since the amount of solid wastes produced often exceeds the rate of disposal. This is largely due to inadequate equipment; funding, trained personnel coupled with the attitude and perception of the public on environmental issues and complete lack of community



participation as a whole in household solid waste management. It was observed that the waste management agency in Kontagora zone has only five functional refuse trucks for the collection and transportation of solid wastes from the town to the designated dumpsite, there is no pay-loader used to compact the waste before burning. In general most of the available facilities are either inadequate or not functional to cover the entire study area. This explains in part why the frequency of refuse collection takes rather too long to be evacuated.

Table 3: Equipment and Personnel of waste management Agency in Kontagora

Types of Equipment	Number Required	Number available
Refuse Truck	8	5
Pay loader	1	-
Bulldozer	1	-
Receptacles (Refuse containers)	5	-
Shovel	30	30
Brooms	30	30
<b>TYPES OF PERSONNEL</b>		
Administrative	5	1
Technical	4	-
Causal workers	100	65

Sources: Fields survey, 2019

### 5. Conclusion and Recommendations

Kontagora, like any other city, has been struggling with the problem of household solid wastes management in recent times; this is further worsed by the growing population and economic activities. This has consequently led to a substantial increase in the quantity and diversity of the solid waste being churned out on daily basis. The household solid waste generated comprises biodegradable and non- biogradable wastes. In addition majority of the household temporarily store the waste generated within the household before final disposal through direct dumping in open space, burning and dumps sites. The rate of generation of these waste have now defied all efforts of the waste management agency in Kontagora largely due to inadequate equipment, funding, trained personnel etc. The study recommends the promotion of ISWM strategy, provision of adequate personnel, funding and equipment among others.

Based on the finding of the study the following recommendations are proffered to facilitate efficient household solid waste management: The promotion of the concept of integrated sustainable solid waste management (ISWM) strategy for the managing of household solid waste. This practice will minimize waste generation, maximize waste management and ensure safe waste disposal. Other recommendations include delineation of the city into manageable zones for the introduction of door-to-door collection and provision of standard receptacles within the reach of households on a street or wards to ensure effective



coverage and easy waste management; enforcement of environmental laws (rules and regulations) that deter indiscriminate waste disposal; embarking on an aggressive campaign using handbills, posters, seminars, radio, television and any other available medium to educate the public on environmentally friendly ways of disposing domestic solid waste; community participation in management of household solid waste. This will make residents to organise themselves and become involved at the level of their living area or neighborhoods, to improve the conditions of their immediate surroundings; and governments should ensure the provision of efficient funding, personnel and equipment required for efficient waste management.

### References

- Adeyemi, A. S., Olorunfemi, J. F., & Adewoye, T. O. (2001). Waste scavenging in Third World cities: A case study in Ilorin, Nigeria. *Environmentalist*, 21(2), 93-96. doi.org/10.1023/A:1010655623324
- Agbesola, Y. O. (2013). Sustainability of municipal solid waste management in Nigeria. A case study of Lagos. Master's thesis, water and environmental studies department of thematic studies. Linköping University.
- Arukwe A. (2012). Solid waste deposits as a significant source of contaminants of emerging concern to the aquatic and terrestrial environments - a developing country case study from Owerri, Nigeria. doi: 10.1016/j.scitotenv.2012.08.039.
- Amuda O. S., Adebisi S. A., Jimoda L. A., & Alade A. O. (2014). Challenges and Possible Panacea to the Municipal Solid Wastes Management in Nigeria. *Journal of Sustainable Development Studies*. Retrieved from <http://www.scirp.org/journal/jep>
- Anyanwu, N.C. & Adefila, J.O. (2014). Nature and management of solid waste in KaruNasarawa state, Nigeria. *American international journal of contemporary research*.
- Ayo B., Hassan T. I., Ibrahim B., & Mohammad R. M., (2010). The practice and challenges of solid waste management in Damaturu, Yobe state, Nigeria. *Journal of environmental protection*. Retrieved from <http://www.scirp.org/journal/jep>
- Benedine, A. Robert, T.A. and Abbas, I.I.(2011). Impact of spatial distribution of solid waste dumps on infrastructure in Samaru, Zaria, Kaduna state, Nigeria using geographic information systems (GIS). *Research journal of information technology*.
- Ike, Ezeibe1, Anijiofor, Daud(2018). . Solid waste management in Nigeria: problems, Prospects, and policies. Retrieved from <https://doi.org/10.5276/jswtm>.
- Imam, A., Mohammed, B., Wilson, D. C., & Cheeseman, C. R. (2008). Solid waste management in Abuja, Nigeria. *Waste Management*, 28(2), 468-472
- Karim, R. & Nawshin N. (2012). Characteristics of household solid waste and its management options in the urban areas. *Jessore, Bangladesh international journal of science and research (IJSR)*. Retrieved from <http://www.ijsr.net>



- Hakami, B.A. & AbuSeif, E.S.(2015).Household solid waste composition and management in Jeddah city, Saudi Arabia: A planning model. *International research journal of environment sciences*.Retrieved from <http://www.isca.in>
- Nwabinye et' al,(2017).Economic analysis of household waste generation, disposal and management in Umuahia metropolis, Abia state, Nigeria.*International journal of health economics and policy*. Retrievedfrom <http://www.sciencepublishinggroup.com/j/hep>
- Sankoh, F.P. Yan X, & Conteh, M. H. (2012). A situational assessments of socioeconomic factors affecting solid waste generation and composition in Freetown, Sierra Leone . *Journal of Environmental Protection*
- Limbu, A (2013).Analysing socio-economic and cultural factors affecting waste generation in Guma Gewog, Punakha. Research report submitted in partial fulfillment of the requirement for theaward of postgraduate diploma in public administration(PGDPA). Royal Institute of Management.





## EFFECTS OF OPERATIONAL RISK MANAGEMENT ON THE FINANCIAL PERFORMANCE OF MICRO FINANCE BANKS IN KWARA STATE, NIGERIA

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### Abstract

*This study provides empirical investigation on the operational risk management practices and financial performance of micro finance banks in Kwara State. Thus, the specific objectives are to: ascertain the relationship between technology risk management and micro finance banks' financial performance in Kwara State; and determine the effect of personnel risk management on financial performance of micro finance banks in Kwara State. In order to achieve this, survey research design was adopted with total population of 155 from which 112 were picked as a sample size. Partial Least Square Structural Equation Method (PLS-SEM) was used to analyse the data. Findings revealed that technology risk management and personnel risk management are significantly and positively related to the financial performance of micro finance banks in Kwara State. The study concluded that, operational risk management practices are positively related to the financial performance of micro finance banks in Kwara State. Therefore, the study recommended that management should adopt a new technology, and there should be provision of manual back up in case of system failure for vital document. Moreover, management should increase employment of skilled employees and regular training of existing staff on how to deal with operational risk exposure.*

**Keywords:** Operational risk, Operational risk management, technology risk management, personnel risk management, financial performance

### 1. Introduction

Operational risk has become a major obstacle in the micro finance banking system. Its management involves taking proper measures to ensure qualitative transactions and delivery of excellent service to customers (Grody, Harmantzis&Kaple, 2005). Also, the dynamic changes in financial markets, increasing globalisation, re-capitalisation and global financial crisis have significant effects on the magnitude and nature of operational risk faced by micro finance banks. Due to several operational failures and attendant restructuring of the affected micro finance institutions, emphasis has been placed on operational risk. Thus, regulators, auditors and rating agencies now focus more on



operational risk within the micro finance institutions (Helbok& Wagner, 2006). Therefore, effective operational risk management needs to be established in the micro finance banks.

In Nigeria, operational risk management practices can be traced back to year 2005, when it was observed that the formal financial system provides services to about 35% of the economically active population while the remaining 65% are excluded from access to financial services. These 65% are often served by the informal financial sector, through non-governmental organisation, money lenders, friends relative and unions. The non-regulation of the activities of some of these institutions has serious implication for the central bank of Nigeria (CBN) ability to exercise one aspect of its mandate of promoting monetary stability and a sound financial system. Hence, the Central Bank of Nigeria (CBN) restructured the capital base of community bank and reframed its name to microfinance bank. This was because the capital base of 5million naira for community banks has become too low for its operation. Thus, new capital base was issued by the CBN. The new capital base of micro finance banks in the country was structured to N20 million for unit micro finance bank, N100 million for micro finance bank operating within a state and N1 billion for micro finance bank operating at national level with effect from 31<sup>st</sup> December, 2005 (Central Bank of Nigeria, 2005). Thus, this policy was formulated to reduce and mitigate the operational crisis in the financial system.

Several measures and procedures like curtailing complexities in business process and reinforcing organisational ethics have been put in place by the regulatory agencies to alleviate operational risk in micro finance institutions. However, micro finance bank exposure to this risk seems to be significant and affects financial performance of micro finance banks in Nigeria. Operational risk is not properly understood by many academia and financial risk managers, thus its treatment as a left-over risk from other types of risks affect micro finance institution and it has turned to major problem in the financial sector which needs to be addressed (Acharyya 2012).

Technology and system risk are two major causes of operational risk with greater effect on the financial performance of micro finance banks in Nigeria (Maina, Alala, Wabwile&Musiege, 2014). The complexity involves in micro finance banking activity and high dependence on the usage of technology have made operational risk the most important risk affecting micro finance banking system (Laker 2006; Fatemi&Sabbaghian, 2019). In addition, personnel risk has continued to hinder the financial performance of micro finance banks in Nigeria (Maina *et al.*, 2014). Processes and procedures involved in lending activity in the micro finance institution are prone to human error, misjudgement, negligence and fraud.

The implication of these problems such as, employee's error, equipment failure, external event, technology and system failure have consequently reduced micro finance banks' financial performance in terms of profitability, liquidity and asset turnover (Cope, *et al.*, 2009; Okeke, *et al.*, 2018). Many literature have been reviewed on operational risk



management and financial performance (Lyambiko, 2015; Meshack&Mwaura, 2016; Maalim, 2017; Ameer, 2018). However, there have been few studies on Nigeria (Osadahun, 2014; Okeke *et al* 2018), to the best of researcher's knowledge and the literature reviewed, none has been done in Kwara State. Based on this premise, the study tends to bridge the identified gaps in the literature by looking into operational risk management practices and financial performance of micro finance banks in Kwara State.

In view of this, this study examines the effect of operational risk management practices on the financial performance of microfinance banks in Kwara State using quantitative method of analysis.

## **2. Literature Review**

Operational risk can be defined as “the risk of direct or indirect loss, resulting from inadequate or failed internal process, people and systems or from external events”. This definition includes legal risk but excludes reputational and strategies (BCBS, 2001). Operational risk can also be defined as direct or indirect event that can harm the financial performance of micro finance bank negatively. Direct event could be any loss resulting from inadequate or failed internal processes, people, and systems. Indirect event could result from natural disaster, changes in political regime or parties (change in government, Civilian to Military regime), flood, terrorist attack and high robbery (Delija, 2015).

Moreover, Ghosh Roy and Khakale(2013) defined operational risk as the risk that results from failure of operating system in the micro finance bank as a result of factors like fraudulent activities, human error and mistake. The operational risk can be traced to loss of manpower, unskilled labour, robbery, theft, internal and external fraudulent practice, shortage in labour in an organisation or poor-quality material.

Operational Risk Management (ORM) is the process of managing direct or indirect risk of loss resulting from failed internal process, staff, and system or threats from external events (Karam&Planchet, 2012). ORM also involves reviewing, directing and monitoring of all strategies that cater for management. It is also the process of managing all regulatory responsibility, quick responses and feedback to any major disruptions and external threats. It can be viewed from four major perspectives, namely; internal process risk management or internal control process, technology risk management, personnel risk management and compliance & legal risk management risk (de Jongh, de Jongh ,de Jongh & van Vuuren,2013; Delija, 2015;Chernobai, Ozdagli& Wang ,2018).

Technology risk is the risk that occurs due to system disruptions, unreliable hardware or software. New technology opens micro finance banks to technology risk (Fatemi & Sabbaghian, 2019). According to Shamakhi and Sheikhipoorian (2016), technology can be defined as electronic convergence point of data process and telecommunication which promote the growth of an organisation. New technology development or advancement can make the old one become obsolete to the micro finance bank thereby creating threat to



operation and financial performance of micro finance bank. D'Olene and Barrett (2016) defined technology risk management as a process of making sure that data, system, machine and other information technology are protected and utilised in an efficient and effective way.

This is another type of operational risk which covers any defect in human resources department of an organisation, such as error by employees, unskilled staff, fraud by worker, act of dishonesty, taking deliberate action resulting in losses of serious nature (Delija, 2015; Arif, Jan & Kulsoom, 2016). Personnel risk management involves managing, recruiting, selecting appraising human resources in such a way that it conforms to the goal of the organisation (Aloqab, Alobaidi, & Raweh, 2018). Skilled and qualified personnel need to be employed to aid the financial performance of micro finance bank. Workers are needed to be assigned specific tasks according to their skills and talent (Imane, 2014).

Financial performance can be defined as the measure of micro finance banks' achievement on the goals, policies and operational activities in monetary value within a financial year. It involves financial health and strength of an organisation (Ngumo, Collins & David, 2017). In the context of micro finance banking system, financial performance measures the financial capacity of micro finance banks. Also, Obwogo *et al* (2017) defined performance as the ability and capacity of the firm or business organisation to generate new resources, from day to day operations, over a period of time. Financial performance can be gauged by net income and cash from operations. Also, it can be seen as the expansion in operation, enjoying economic of scale, maintaining steady cash flows, efficient and effective utilisation of resource, large customer base, large deposit, and more usage of technology (Okeke *et al.*, 2018).

Banks and every other business organisation are after profit margin and the best way to measure profit margin is through their financial performance (Maalim, 2017). Thus, financial performance indicators include; Return on Asset (ROA), Return on Earning (ROE) and Net Interest Margin (NIM) (Maalim, 2017; Olalere, Aminul, Yusoff, & Shamsuddin, 2018).

The theory underpinning this study is contingency theory. This theory was developed from sociological functionalist theories and propounded by Fred Edward Fiedler in 1964. According to Sigey (2018), contingency theory explains the relationship and the linkage between organisational performance and the environmental factors that influence it. Since micro finance banks are faced with a lot of pressure from internal factors (technology risk, employee risk etc). Micro finance banks need to monitor its environmental factors so as to improve its financial performance (Islam & Hui Hu, 2012). The theory also opined that, contingent factors such as technology and personnel risk affect the functionality of the organisation. Hence, proper and effective management need to be established for the organisation to stand well against these contingent factors (Islam *et al.*, 2012). The basic assumption of this theory is that, organisations have different contingent factors that affect



their operational performance. Each organisation is thus required to study and assess its environmental factors so as to understand the likely factors that can affect its functionality (Islam *et al.*, 2012; Otley, 2014).

The relevancy of this theory to this research study is that, it provides positive relationship between dependent variables and independent variables of this study. The dependent variable is financial performance while independent variable is operational risk management. This independent variable (operational risk management) is further divided into sub-parts; technology risk management and personnel risk management. The theory suggested A-prior expectation sign for this study to be positive.

Technology risk and employee risk are two factors that accounted for causes of operational risk exposure and have great influence on the financial performance. To support this, Kamssu, Rethel and Ziegelmayr (2003) explored a qualitative approach to determine the effect of information technology on financial performance through the impact of being an internet- dependent firm on stock returns. The result showed that choosing a particular information technology will have positive effect on the financial performance of firms; thereby increasing stock return.

A study conducted in Iran by Sadeghimanesh *et al.*, (2013), which examined the effect of Information Technology (IT) on financial performance of bank listed in the floor of exchange. 183 staff were selected for the sample using simple random sample. The study explored survey research design where questionnaires were distributed to the respondent. Information technology was measured with these variables: IT knowledge, IT operation and IT infrastructure while financial performance was proxy with capital management, asset quality and liquidity volume. The result showed that information technology has significant effect on the financial performance of listed bank. It is recommended for the bank to improve their usage of computer and establish Management Information System Department.

Maina *et al* (2014) examined the effect of operational risk in the lending process of micro finance banks profitability in Kakamega town, Kenya. Operational risk was proxy with compliance, system, character, culture and fraud. Survey research design method was used and questions were administered in a five-point likert scale to 51 employees of ten micro finance banks using stratified sampling technique. Partial regression technique was employed and results showed that compliance, system, character and culture were positively related while fraud was negatively related to the profitability of micro finance banks in Kenya. Another view by Osadahun (2014) which explored a qualitative approach on operational risk management in the Nigerian banking institution which showed that, fraud is one of the major causes of operational risk in the banking environment. The study used qualitative method in form of administering interview to the executive staff of the selected banks. The study revealed that, Nigerian banking had not been able to establish proper operational risk loss data base.



Lyambiko (2015) looked into operational risk from quantitative perspective. The study reviewed the effect of operational risk management practices on the financial performance of banks in Tanzania. The mode of data used for the study was quantitative and secondary data from 2009-2013 with population study of 36 banks. The study adopted descriptive statistics and regression analysis. Variables used include operational efficiency, credit risk and insolvency risk as independent variables and dependent variable as financial performance proxy with ROA. Thus, the result showed that operational efficiency was positive correlated with financial performance and credit risk, insolvency risk is negatively related to the financial performance. Also, the result showed that operational risk management practices have positive significant effect on financial performance.

In a related study, Meshack and Mwaura (2016) investigated the effect of operational risk management practices on the financial performance of micro finance banks in Tanzania between 2005-2015. The study used questionnaire as the primary data and a total sample of thirty-four (34) micro finance banks were chosen and descriptive method of analysis plus regression was used to analyse the data. The result revealed that operational efficiency, credit risk and insolvency risk which were used to measure operational risk as independent variable was significant to the performance of micro finance banks in Tanzania measured as Return on Asset (ROA).

Maalim (2017) measured the effect of operational risk management practices on the financial performance of Islamic bank in Kenya for a period of five (5) years from 2011-2015. Seven banks were sampled. Expo facto and questionnaire were used in the study and ANOVA was used to analyse the data obtained. Operational risk management was proxy with; sharia compliance and bank size. While financial performance was represented by ROA. The result revealed that there exists a strong linkage and association between financial performance and operational risk management practices in Kenya Islamic bank.

Similarly, Murithi and Waweru (2017) studied operational risk effect on the profitability of banks in Kenya. The study covered the period of 2005 and 2014 for the forty-three (43) registered commercial banks in Kenya. Generalized Method of Moment (GMM), method of regression analysis was used and the finding indicates cost- income ratio is negatively associated with profitability of the banks. Therefore, it was recommended that cost-income management need proper attention before effective operational risk management can be achieved.

Moreover, Nyada (2017) examined the relationship between operational risk management and quality management in micro finance banks of Kenya. The study used survey method. A total of 43 micro finance banks were sampled. The independent variables were quality management and proxy with customer focus, employee involvement, continuous improvement and leadership commitment. While dependent variable was operational risk management and proxy with; reduced operational loss, increased efficiency and improve customer service. The study revealed that micro finance banks had not implemented their



quality management system. Thus, the study recommended that banks should improve their quality management in order to have high performance and reduce operational risk in the micro finance banking sector.

Sigey (2018) looked into the effect of Information Technology (IT) risk management on the performance of micro finance bank in Kenya. The study used 42 micro finance banks from 2013-2017. The independent variable was measured with strategic risk of IT, cyber security and incidence response, IT resiliency and continuity risk, technology vendor and third-party risk. While the dependent variable was measured using ROA. Both primary and secondary data were used. Primary data were obtained using questionnaires arranged on five likert scale and secondary data were sorted from audited financial statement. The study concluded that strategic IT, IT resiliency and continuous risk, technology vendor and third-party risk are significantly negative to the performance of micro finance bank. Cyber security and incidence response are positive but insignificant on the performance of bank. Also, the study recommended that micro finance banks must establish Information Technology (IT) department in order to cater for risk exposure caused by IT.

Aloqabet *al* (2018) reviewed operational risk management in the financial institutions in China. The nature of the research was qualitative and the study looked at the various methods of operational risk identification and concluded that, for better operational risk management, micro finance banks need to comply with both national and global regulation guidelines. Also, Chernobaiet *al.*, (2018) employed quantitative research to analyse business complexity and risk management; evidence from operational risk event in U.S bank holding companies. The data cover from 1996-1999 and operational risk was measured with event disclosure on internal and external fraud, client, product and business practices, execution, delivery and process management. Performance was measured by Return on Asset (ROA) Thus, result showed that the frequency and magnitude of operational risk event increased significantly with bank complexity. Therefore, operational risk factors are likely to affect performance of bank among U.S bank holding companies.

Meiying (2018) examined operational risk management and its determinant in Malaysia using a case study of Century Logistics Holdings Berhad (CLHB). The study employed time series data between 2012 and 2016. Dependent variable was operational risk management proxy with operating expense to total income. While independent variables were firm micro factor (return on equity) and macro factor proxy with; inflation, current ratio and average collection period. Thus, the result revealed that, firm specific factor measured by Return on Equity (ROE) has significant effect on the operational risk management, while macro factors (inflation, current ratio and average collection period) do not show any influence on the operational risk management.

Okekeet *al* (2018) explored a quantitative method of operational risk management on the performance of selected banks in Edo state, Nigeria. The operational risk was measured by people risk, process risk, system, technology risk and external risk. The survey research





design was used and statistical tool by Borg and Gall (1973) was adopted to get sample size. Multiple regression analysis was also adopted to test the stated hypothesis. The result showed that process risk had negative influence, system and technology risk also had negative relationship while external risk has positive influence on the performance of deposit money bank. The overall result showed that operational risk has negative impact on the performance of bank in Edo State. The study recommended that the banking institution and the regulatory authority to focus more on the people risk and build strong internal control.

### **3. Methodology**

Survey method was used in this study and it involves using questionnaire to collect information from respondents (Gujarati, 2004). Survey research design was used for this study due to the fact it provides a clear opinion, feeling and attitude of the respondent.

According to CBN (2018), the total number of registered microfinance banks in Kwara State as at December, 2018 was thirty-one (31). Based on this, it is sufficing that a workable sample is selected from the population. The respondent population was derived at by choosing the Heads of microfinance banks mandatorily required by the CBN. The heads comprise five (5) management staff (managing director, Head of credit risk manager, Head of customer service, Head of internal audit and compliance, Head of operations and head of admin and finance) with 31 MFBs in Kwara State. This gives total respondent population 155.

The study adopted a purposive sampling technique in order to achieve a fair representation of the total population and to reduce biasness. The sample size of 112 for this study was determined using Taro Yamane (1967). However, Israel (2013) advised that 10% -30% should be added to the minimum sample size for attrition. 30% of 112 (34) was added to the minimum sample size of 112 to make it 146. 146 copies of the questionnaires were distributed to the respondents.

The study used survey method of data collection through the distribution of well-structured questionnaire to the targeted respondents. The survey method was used because most of the micro finance banks in Kwara State were not listed on the floor of exchange and therefore made it difficult to get their published data. Thus, primary data were chosen for this study. Primary data allow for collection of data from large respondents within a short period of time and provide a standardised method of capturing populations. It also provides original quality of the research and does not create room for bias or third-party opinions (Field, 2009).

The mode of instrument used in collecting data for this study was questionnaire. The layout of the questionnaire was designed easily and simple in order to encourage meaningful participation by the respondents (Asika, 2006). Questionnaires were designed on the five (5) point likert scale which rate respondents' opinion on the basis of their responses as to





whether they strongly agree, agree, undecided, disagree and strongly disagree. Each of the Five (5) Likert point has coding number which include; 1 for strongly disagree, 2 for disagree, 3 for undecided, 4 for agree and 5 for strongly agree. Five-point likert scale was preferred for this study as they have high versatility and gives room of independences to the respondent to choose any responses of their choice in a balanced and symmetric way (Joshi, Kale, Chandel & Pal, 2015).

Following the proxies for both dependent and independent variables, descriptive and inferential statistical instrument were used as a means of measuring collected data. The descriptive statistical tool shows the demographic characteristics of respondents, and response rate of data collected. While the inferential statistical tool shows the result of measurement of model, reliability and validity test, outer loading and bootstrapping analysis. Moreover, preliminary analysis was conducted to determine the appropriate methodological techniques. These include; normality test, assessment of outlier and multicollinearity test. The hypotheses of this study were tested at Five percent (5%) level of significant using a statistical technique known as Partial Least Square Structural Equation Model (PLS-SEM) method of regression analysis in order to provide robust result. The justification for chosen these techniques is that, it provides an opportunity to measure unobservable variables with indicators; it also shows the extent to which construct of variable study can be relied upon (Sander & Lee., 2014).

In order to quantify the objective of this study, Maina *et al* (2014) model was adapted. The study assessed the effects of Operational Risks Management in the Lending Process of Deposit Money Banks Profitability in Kakamega, Kenya. The study adopted survey method and basically explored data from questionnaires. Therefore, the modified model is stated below:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e \dots\dots\dots 1$$

Where Y measures financial performance of deposit money bank in term of its profitability.  $\beta_1, \beta_2, \beta_3, \beta_4$  and  $\beta_5$  were coefficients which indicate the amount of change in the value of dependent variable for a unit change in independent variables.  $X_1, X_2, X_3, X_4$  and  $X_5$  were independent variables representing Compliance, Systems and technology, Character, Culture and Fraud respectively and e was the error term.

Furthermore, this study modified the model in order to get clear relationship between dependent and independent variables. This was done because the model does not contain all the independent variables of this work. Thus, this study added other variables such as personnel risk management to the adapted model. Also, all these elements of risks are conceptualised using perception metric base on earlier studies (Okekeet *al.*, 2018; Chernobaiet *al.*, 2018).

Therefore, the study's model is expressed as follow:

$$FIN_i = \beta_0i + \beta_1TRMi + \beta_2PRMi + \mu_i \dots\dots\dots 2$$



Where TRM means Technology Risk Management; PRM implies Personnel Risk Management and FIN means Financial performance

#### 4. Result

Table 1 below shows the summary of the number of questionnaires distributed and the number of questionnaires returned. The total of 146(112+34) questionnaire were distributed and 118 (80.8%) were retrieved. Data screening was carried out on the retrieved questionnaire and all were found to be useful. Thus, the analysis was based on 118 questionnaires duly filled and returned which represent (80.8%) of the total questionnaire distributed. The response rate is considered sufficient for statistical reliability and generalization (Tabachnick&Fidell, 2013).

Table 1: Summary of Response Rate

Items	No of Copies	Percentage (%)
Copies of Questionnaire Distributed	146	100
Copies of Questionnaire Returned	118	80.8

Source: Field Survey, 2019

It is important to put in to preliminary test, the data collected prior running main data analysis (Hair, Black & Babin, 2014). The collected data were vetted for missing values, detection of outlier, data normality and multicollinearity. Details are presented below.

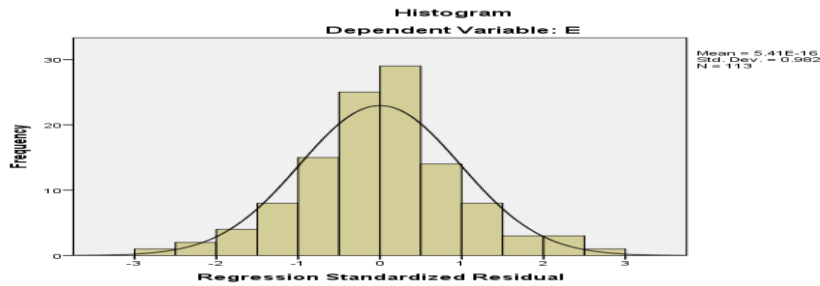
Using descriptive statistics, out of 4,248 data elements only 12 were found to be missing in the data set. This constitutes 0.28% of the data set which is far below the 10% benchmark and therefore was ignored. However, the missing values were replaced using mean substitution. Mean substitution is the most commonly used method for replacing missing values (Hair *et al.*, 2014).

Detecting outliers for multivariate analysis such as this study is best detected by using Mahalanobis distance ( $D^2$ ). Thus, this study used Mahalanobis distance ( $D^2$ ) to detect outliers and Five (5) cases were detected as outlier and were deleted from the data set. 113 cases of 118 useful copies of questionnaires were used for analysis, as a result of the deletion of 5 cases from the data set.

Normality test was carried out on the basis of individual items measuring the constructs in the study. The study utilised skewness and kurtosis statistics to assess the normality. While skewness measures the symmetry of the distribution, kurtosis measures the peakness or flatness of a distribution (Hair, *et al.*, 2014). To them, if the variation from the normal distribution is sufficiently large, all resulting statistical tests are invalid. Critical value of +2.58 (.01 sig level) and +1.96 (@ .05 sig level) are benchmark. The result of this test showed that all items are relatively normal as shown in figure 1 below.



Figure 1 Histogram



Source: Field Survey, 2019

The study tested multicollinearity using variance inflation factor (VIF). A VIF figure above  $\geq 5$  shows serious multicollinearity (Kothari & Garg, 2014). However, there was no problem of multicollinearity as all VIF figure in Table 2 are below the threshold.

Table 2: *Multicollinearity Statistics: VIF Values*

Construct	VIF
Technology risk management	1.679
Personnel risk management	1.002

Source: Field Survey, 2019

This section presents demographic characteristics of respondents. These include gender distribution, age distribution, academic qualification, and years in which respondents have been working with their organisations. The results are presented in Table 3.

Table 3 shows that the majority of the respondents that participated in this study are male constituting of 68 respondents, which is equivalent to 60 percent of the total responses usable for the analysis of this research, whereas 45 participants representing only 40 percent of the total respondents are female. This implies that the rate at which men responded was higher than that of women. Therefore, the men constitute largest respondent in this study. Also, from the Table 3, it can be deduced that only 6% of the sampled respondents are between the ages of 18-25. More so, 29 of the respondents are between the ages of 26-30, representing 26%. 38% of the total respondents are between the ages of 31-35. Respondent above 35 years are 34, presenting 30% of total respondents. This implies that most of the sampled respondents of this study are those between the ages of 31-35.

Information on the academic qualification of sampled respondents are as follows; 29% are holders of either national diploma or higher national diploma. 49% are first degree holders, while 15% either have a postgraduate certificate or are postgraduate students, while 7% hold degrees that are not specified in the study. The respondents of this study include; national diploma/higher national diploma, first degree holders and post graduate. It can be



deduced that the most of the respondents are degree holder as they cover 49%, while the next is diploma (ND/HND) which covered 29%, follow by post graduate which covered 15% while 7% represent others. This implies that most of the respondents of this study are all literates and will be suitable for this study.

Moreover, as indicated in Table 3 , 11 respondents constituting 10% of the total responses have been working with the micro finance bank less than a year, while 24 respondents constituting 21% of the total response have been working within a period of one to five years. On the other hand, 78 respondents which constitute 69% of the total response have been working over five years. This therefore implies that most of the respondents for this study have been working with the micro finance bank for more than five years. Thus, they are suitable for data collection as a result of their long year of services in the work.

Table 3: Demographic Characteristics of Respondents

Characteristics		Frequency	Percentage	Cumulative Percentage
Gender	Male	68	60	60
	Female	45	40	100.00
Age Distribution	18-25	7	6	6
	26-30	29	26	32
	31-35	43	38	70
	Above 35	34	30	100
Academic Qualification	ND/HND	33	29	29
	B.SC/BA	55	49	78
	Post Graduate	17	15	93
	Others	8	7	100
Working Experience	Under 1 year	11	10	10
	1-5 year	24	21	31
	Over 5years	78	69	100

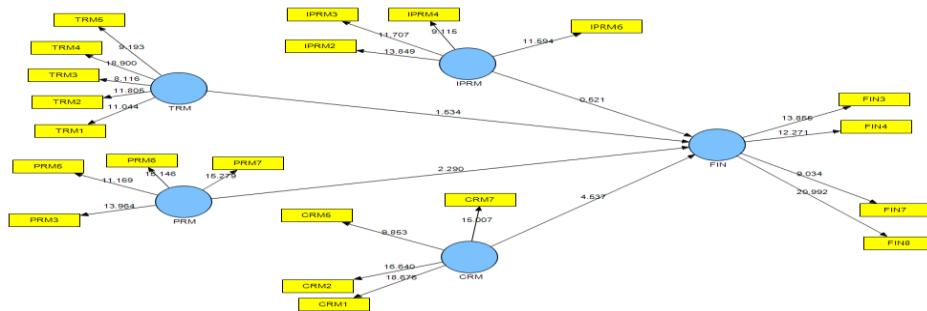
Source: Field Survey, 2019

In order to determine the effects of operational risk management practices on financial performance of micro finance bank in Kwara State, Nigeria, the study applied bootstrapping analysis. Bootstrapping analysis otherwise known as Structural Equation Model (SEM) provides opportunity to assess unobservable variables with indicators (Sander & Lee, 2014). Also, Akter, FossoWamba, & Dewan (2017) opined that the best way to measure research that involves in survey method is through bootstrapping or structural equation model, because it provides exact relationship between indicator and latent variables of the study.



As indicated in figure 4.4, Bootstrapping was done by using 5000 numbers of subsamples together with 113 cases in order to determine the effect of operational risks management on the financial performance of microfinance banks. Based on the result, figure 4 is presented, which shows the structural model of the relationships between the exogenous variables (financial performance) and endogenous variable (operational risk management practices) of the study.

Figure 4 Bootstrapping Analysis



Source: Field Survey, 2019

Table 8 presents the path coefficient which indicates the Beta Value, Standard Error, Adjusted R Square and Decision Rule of hypotheses tested in the study. As indicated in Table 4.8 below, technology risk management has positive effect on financial performance of micro finance banks in Kwara State ( $\beta=0.311$ ,  $t>1.96$ ) and significant at 5%. Personnel risk management has positive effect and significant at 5% on financial performance of micro finance banks in Kwara State at Beta Value of 0.210,  $t>1.96$  and significant at 5%.

Table 8: Path Coefficients

Hypotheses	B Value	Standard Error	T Statistics	Decision
TRM -> FIN	0.311	0.101	3.079	Rejected
PRM -> FIN	0.210	0.092	2.290	Rejected

Decision Rule:  $T\text{-Statistics} \geq 1.96$

Source: Field Survey, 2019

It is important to assess the size of effect for the relationships between internal process risk management, technology risk management, personnel risk management, compliance risk management and financial performance of micro finance bank in Kwara State. The result is presented in Table 9.

TRM represents Technology Risk Management, and PRM represents Personnel Risk Management. Table 9 shows effect of size computed as the increase in  $R^2$  relative to the proportion of variance that remains unexplained in the endogenous latent variable. R-square change is the change in  $R^2$  when a causal (exogenous) factor is removed from the



model. The f-square coefficient is constructed equal to  $(R^2_{\text{original}} - R^2_{\text{omitted}}) / (1 - R^2_{\text{original}})$ . The  $R^2$  without IPRM was 0.677, for TRM, it was 0.667, PRM was 0.655 and CRM was 0.573, TRM was 0.034, PRM was 0.071. The larger the  $R^2$  change, the more impacting that factor reduced the explained variance in financial performance of micro finance banks.

Table 9: Effect Size for the Relationship

R Square 0.678			
Construct	Unexplained	$R^2$ change	$F^2$ change
TRM	0.322	0.667	0.034
PRM	0.322	0.655	0.071

Source: Field Survey, 2019

The term co-efficient of determination is another technique for determining structural equation model in the Partial Least Square Structural Equation Model (PLS-SEM). Thus, it helps in determining the proportion of variation in the dependent variable that is being explained by its independent variables (Hair, Sarsted&Ringle, 2012). It is also used to determine the goodness of fit of a model. That is, the more the value closer to 0.1, the more goodness of fit of such model or vice versa. The acceptable value of co-efficient determination ( $R^2$ ) varies across different researchers. There is no prescribe acceptable value for it (Hair, *et al.*, 2010). However, Falk and Miller (1992) proposed an acceptable minimum  $R^2$  to be 0.10. Meanwhile, Chin (1998) opined that for  $R^2$  to be accepted as weak, moderate and substantial in the PLS-SEM, it must be 0.19, 0.33 and 0.67.

As displayed in Table 10 below, R square is 0.678, meaning that 67.8% variance in financial performance of micro finance banks in Kwara State is accounted for by that internal process risk management, technology risk management, personnel risk management and compliance risk management. Thus, operational risk management practice is accounted for 67.8% changes in the financial performance of micro finance bank in Kwara State, Nigeria. This implies that proper management of operational risk (internal process risk, technology risk, personnel risk, and compliance risk) will cause 67.8% positives change in the financial performance of micro finance bank. Also, the value of R square for this study showed that the model is of goodness of fit and it is substantial enough to explain the variation that take place between variables as suggested by Falk and Miller (1992).

Table 10 coefficient of determination

Variables	$R^2$	ADJ $R^2$
OP> FIN	0.678	0.678

Sources: Field Survey, 2019



This section provides answer to the hypotheses that were formulated in chapter one. These hypotheses were tested using Partial Least Square Structural Equation Model (PLS-SEM). The overall result showed the goodness of fit (0.678) and all the variables for operational risk management practices in relation to financial performance were significant at 5% and have positive influence on the financial performance of micro finance bank in Kwara State as displayed in tables 8 and 10.

As indicated in Table 8, row 2 column 2 above, the result shows that technology risk management is positively and significantly ( $\beta=0.311$ ,  $t>1.96$ ) influenced the financial performance of micro finance in Kwara State at 5% level. This led the study to reject the null hypotheses and accept the alternative hypotheses. This implies that, there exist a positive and significant relationship between technology risk management and financial performance. The beta coefficient value ( $\beta=0.311$ ) can be interpreted as for any 1% changes in the management of technology risk of micro finance bank (i.e increasing in provision of external hard disk for software backup data in the bank) will cause their financial performance to increase by 31.1%. The implication of this is that, there is a direct relationship between technology risk management and micro finance bank 's financial performance such that if there is effective management of technology risk, then the financial performance will be increased.

As indicated in Table 8, column 3 row 3 above, personnel risk management has direct influence and significant at 5% level (0.210,  $t>1.96$ ) on the financial performance of micro finance bank in Kwara State. This led to rejection of null hypotheses and acceptance of alternative hypotheses. The coefficient value (0.210) implies that, for any 1% changes in the management of personnel (increasing in employment of skilled staff) will cause their financial performance to increase by 21.0%. This implies that, there is a positive relationship between personnel risk management and financial performance of the banks. From this, it can be seen that, if micro finance bank manage their personnel risk through employment of skilled staff, regular training and seminar for employees, this will cause their financial performance to increase.

Similarly, technology risk management has positive effect on financial performance of micro finance banks in Kwara State ( $\beta=0.311$ ,  $t>1.96$ ) and significantly at 5% level. Thus, it is understood that technology risk management has influence on the financial performance of micro finance banks in Kwara State. Therefore, proper management of technology risk will cause changes to financial performance of micro finance banks positively. Also, operational risk management is significant and have positive effect on financial performance of micro finance banks through technology risk management. This is in line with the work of (Kamssuet *al*, 2003; Sadeghimaneshet *al*, 2013; Barrett, 2016). In their study, they found a significant effect of technology risk management on the financial performance. Moreover, it is in line with assumption of contingency which both state that proper technology risk management will reduce system failure and improve financial



performance of micro finance bank. However, this result is in contrast with the studies of Chernobeiet *al*, (2011) which claims that there is no effect of technology risk on the financial performance.

Personnel risk management has positive and significant effect on financial performance of micro finance banks in Kwara State at Beta Value of 0.210,  $t > 1.96$  at 5% level. This implies that any positive change in personnel Department will also generate positive change as well in the financial performance. Thus, proper management of personnel risk will result in the improvement of the financial performance of micro finance bank in Kwara State. This result is in line with findings of Okekeet *al*, (2018) which examined the effect of operational risk and organisational performance in Edo state. The result also supports the assumptions of contingency theory which states that proper management of personnel risk will eventually improve the financial performance of micro finance banks. Thus, there exists a positive linkage between operational risk management and financial performance of micro finance banks in Kwara State through personnel risk management. However, the finding is in contrast with the work of Chernobeiet *al*, (2011) which found out that, factors, such as personnel risk management, fraud, processes were not determinants and do not have any influence on financial performance.

##### 5. Conclusion and Recommendations

Based on the discussion of findings earlier stated in section four, it can be concluded that there exists a strong linkage between operational risk management practices and financial performance of micro finance banks in Kwara State. Two variables were used to measure operational risk management which includes; technology risk management, personnel risk management on a five-point likert scale. And all were found significant as follows: Technology risk management as a proxy for operational risk management found to be significant at Five percent ( $\beta=0.311$ ,  $t > 1.96$ ). And therefore, proper management of technology risk will bring positive effect on the financial performance of micro finance bank. Personnel risk management was found to be positive and significant at Five percent (5) (0.210,  $t > 1.96$ ) and have influenced the financial performance of micro finance bank in Kwara State. Thus, effective management of personnel will eventually result to high financial performance of micro finance bank.

The result showed that technology risk management has direct influence and significantly related to the financial performance. Following it effects ( $\beta=0.311$ ) on the financial performance of micro finance bank which can be interpreted as it constitutes 31.1% changes in the financial performance. The study recommends that, there is need for microfinance banks to adopt changes in technology system and update their technology, machine, build external storage device to avoid crashing of software. Regular back up of important files, and document of customer should be ensured. Furthermore, the result of third hypotheses showed that, there is positive influence of personnel risk management on the financial performance of micro finance bank and its portion in the financial





performance as 21% led to this recommendation. Micro finance banks need to improve in the area of personnel by employing qualified and competent staff, provision of continuous capacity building for their staff and presence of effective human resources team.

### References

- Acharyya, M. (2012). *Why the current practice of operational risk management in insurance is Fundamentally Flawed: Evidence from the Field*.
- Akter, S., FossoWamba, S. &Dewan, S. (2017). Why PLS-SEM is suitable for complex modeling? An empirical illustration in big data analytics quality. *Production Planning and Control*, 28 (11-12), 1011-1021
- Aloqab, A., Alobaidi, F., & Raweh, B. (2018). Operational risk management in financial Institutions: An overview. *Business and Economic Research*, 8(2), 11- 25.
- Arif, M., Jan, S., & Kulsoom, A. (2016). *Operational risk exposure to islamic banks*. Retrieved from <http://ssrn.com>
- Asika, N. (2006). *Research methodology in behavioral science*. Lagos Longman Nigeria
- PlcBank for International Settlements, B. (2001). *Basel Committee on Banking Supervision Working Paper on the Regulatory Treatment of Operational Risk*.
- Central Bank of Nigeria (2005). *Microfinance policy, regulatory and supervisory framework for Nigeria*. Abuja: CBN
- Chernobai, A., Ozdagli, A. K., & Wang, J. (2018). Business complexity and risk Management: Evidence from operational risk events in U.S. Bank Holding Companies. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2736509>
- Chin, W.W (1998). The partial least squares approach to structural equation modelling.G. A.Marcoulides(Ed), *Modern Methods for Business Research* (4) 295-336.
- Cope, E., Mignola, G., Antonini, G., & Ugocioni, R. (2009). Challenges and pitfalls in measuring operational risk from loss data. *The Journal of Operational Risk*, 4(4), 3–27.
- Delija, A. (2015). The management of operational risk in the microfinance sector looked through albanian reality. *Mediterranean Journal of Social Sciences*, 6(2S2), 35–48.
- deJongh, E., de Jongh, D., de Jongh, R., & van Vuuren, G. (2013). A Review of operational risk in banks and its role in the financial crisis. *South African Journal of Economic and Management Sciences*, 16(4), 364–382.
- D’Olene, S., & Barrett, K. (2016). *Scholar works effects of information technology risk management and institution size on financial performance*.
- Fatemi, A. S., & Sabbaghian, A. (2019). The role of information technology on management of risks in the capital market (Case Study: Companies Listed in Tehran Stock Exchange). <https://doi.org/10.20944/preprints201901.0109.v1>
- Field, A. (2009). *Discovering statistics using spss* (3rd ed.). London: Sage. Fullerton,
- Ghosh Roy, D., Kohli Associate Professor, D., &Khatkale Assistant Professor, S. (2013). Basel I to Basel ii to Basel iii: A Risk Management Journey of Indian Banks. *AIMA Journal of Management & Research* (Vol. 7).



- Gujarati, D.N. (2004) *Basic Econometrics*. 4th Edition, McGraw-Hill Companies
- Grody, A. D., Harmantzis, F. C. and Kaple, G. J. (2005). Operational risk and reference data: exploring costs, capital requirements and risk mitigation, Stevens Institute of Technology, Hoboken, NJ.
- Helbok, G & Wagner, H. (2006). Determinants of operational risk reporting in the banking industry, *Journal of Risk*, July 11
- Hair, J., Black, W., Babin, B., & Anderson, R. (2014). *Multivariate Data Analysis*. 7<sup>th</sup> ed. Pearson New International Edition: UK
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7<sup>th</sup> ed). Upper Saddle River, New Jersey: Prentice Hall.
- Hair, J. F., Sarsted, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(414-433).
- Isreal, G. D. (2013). Determining sample size. *Journal of business research*, 1(1), 1-5
- Imane, Y. (2014) Risk management practices and financial performance in Jordan: Empirical evidence from Islamic Banks at Setif University.
- Islam, J. (2012). A review of literature on contingency theory in managerial accounting. *African Journal Of Business Management*, 6(15).
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). *Likert Scale : explored and explained likert scale : Explored and Explained*. (January).
- Lyambiko, M. R. (2015). *The effect of operational risk management practices on financial performance of commercial banks in Nigeria*.
- Laker, John. F. 2006. The evolution of risk and risk management – A prudential regulator’s perspective. Chairman’s Speech, Australian Prudential Regulatory Authority. September
- Maina, G., Alala, O., Wabwile, E., & Musiege, D. (2014). Effects of operational risks in the lending process of commercial banks profitability in Kakamega Town. *International Journal of Business and Management Invention*, 3(31), 11-17
- Maalim, B. (2017). The effect of operational risk management practices on the financial performance in Islamic Banks In Kenya .Research Project Proposal Submitted In Partial Fulfillment Of The Requirement For The Award Of The Degree Of Master Of Sci.
- Meshack, K. M., & Mwaura, R. W. (2016). The effect of operational risk management practices on the financial performance in commercial banks of Tanzania. *American Journal of Finance*, 1(6), 29-39.
- Muriithi, J. G., & Waweru, K. M. (2017). Operational risk, bank size and the financial performance of commercial banks in Kenya. *International Journal of Finance & Banking Studies* (2147-4486), 6(3), 39. <https://doi.org/10.20525/ijfbs.v6i3.691>
- Obwogo, A.C., Muturi, W., & Atambo, W. (2017). Effects of enterprise risk management measure on performance of commercial banks in Kenya. *International Journal of Economics, Commerce and Management*, Vol v, 1-10.



- Olalere, O. E., Aminul, I., Yusoff, W. S., &Shamsuddin, Z. (2018). *An Investigation into operational risk in commercial banks: Empirical evidence from Nigeria*. *International Journal of Accounting* (Vol. 3). Retrieved from [www.ijafb.com](http://www.ijafb.com)
- Okeke, A. N., Onuorah, ; M N, Aganoke, C. U., &Onuorah, A. N. (2018). Operational risk management and organisational performance of banks in, Edo State. *International Journal of Academic Research in Economics and Management Sciences*, 7(4), 103–120.
- Osadahun, S. B. (2014). *Operational risk management in the Nigerian Banking Sector*.
- Palys, T. (2008). Purposive sampling. In L. M. Given (Ed.) *the Sage Encyclopedia of Qualitative Research Methods*,(2) 697-8.
- Pallant, J. (2010). *SPSS survival manual: a step by step guide to data analysis using SPSS* (4th ed.). New York: Open University Press.
- Kamssu, A. J., Reithel, B. J., &Ziegelmayer, J. L. (2003). *Information Technology and Financial Performance: The Impact of being an Internet-Dependent Firm on Stock Returns*.
- Karam, E., &Planchet, F. (2012). Operational risks in financial sectors. *Advances in Decision Sciences*. <https://doi.org/10.1155/2012/385387>
- Kothari, C.R., &Garg, G. 3<sup>rd</sup> Ed. (2014). *Research methodology: Methods and Techniques*. New Age International Publishers.
- Shamakhi, H. R., &Shekipoorian, E. (2016). The effect of changing capital and deposits on the performance of banks: Banks listed in Tehran Stock Exchange. *International Business Management*, 10(11), 2235–2242.
- Sigey, W. (2018.). Effect Of Information Technology Risk On Financial Performance Of Commercial Banks In Kenya A Research Project Submitted In Partial Fulfillment Of The Requirement For The Award Of The Degree Of Master.
- Tabachnick, B.G., &Fidell, L.S. (2013). *Using multivariate statistics* (5th ed.). Boston: Pearson.
- Tabachnick, B. G., &Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). New York: Allyn and Bacon.
- Uwamahoro, A .,Twesige, D., Dukunde, A., &Muvunyi, E.,Ndikubwimana, J. B.(2019) .Loan management and performance of microfinance institutions In Rwanda: A Case Musanze District (2015 - 2017). *International Journal of Business and Applied Social Science*, 4(1) 226-232.



## A CRITICAL POLICY REVIEW ON ENVIRONMENTAL PROTECTION IN NIGERIA

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### **Abstract**

*The environment is as important as human life because it is the environment that shelters the earth and enables life to exist with essential elements and compounds like nitrogen, oxygen, carbon dioxide, water vapour etc. On this note, it becomes essential for human beings to, as a matter of necessity properly manage the environment for life sustenance. In Nigeria, there are several policies of government to protect environment to safeguard human survival. These policies deserve review and assessment to see their effectiveness on the protection of the environment. To properly take off, the study adopts secondary source of data using published and unpublished relevant materials. The study adopts the theory of Environmentally Responsible Behaviour (ERB) as a theoretical framework which serves as a foundation upon which the discussions of this study are based. The study deduced that human activities on the environment earnestly change the face of the earth, the nature of its atmosphere, and the quality of land, water, air, forest, etc. Many of the environmental policies in Nigeria are outdated and many fragmented. Many of them were not formulated with contributions from informed masses nor based on nationally generated baseline data. Participation of the people in policy formulation and implementation is lacking. The paper identifies challenges confronting the management of environment in Nigeria and policy options are provided.*

**Keywords:** Environment, Policies, Human Life, Atmosphere, Earth

### **1. Introduction**

Environment is the atmosphere that shelters the earth from excessive amounts of ultraviolet radiation and enables life to exist with a gaseous mixture of nitrogen, oxygen, carbon dioxide, water vapour, other elements and compounds, and dust particles. The soil is the thin mantle of material that supports terrestrial life. Land, water, air mineral resources and forest are the major elements of the environment, which are dependent on the earth's living organisms including human beings survivals. Plants use water, carbon dioxide and sunlight converted to raw materials into carbohydrate through photosynthesis. Animal life in turn is dependent on plants, in a sequence interconnected relationships or union as food (Adekola, 2011).



The environment is the life support system given by the Creator to mankind. Sometimes in the past, the three components of the environment -air, soil and water - were pure, virgin, undisturbed, uncontaminated and basically most hospitable. But, the reverse is the case today because progress in science and technology is also leading to environmental degradation and serious ecological imbalance, which in the long run, may prove disastrous for mankind (Eneh and Agbazue, 2011:490-491). However, when the natural environment of the planet has degenerated to such an extent, that the biodiversity and general health of the planet is subjected to drastic reduction, and the earth`s natural surroundings are the deteriorated as a result of excessive exploitation of the available resources, land water, air, mineral resources etc, environmental depletion/degradation is said to have occurred.

Eneh et`al (2011:492) are of the opinion that in quest for economic development, which seeks to increase the quantum of economic output without caring about the short- and long-term short-changes of human and material resources arising from the process, the activities of people and nations conquer and wreck the world, rather than sustain it for the present and future generations. Progress in agriculture, industry, transportation and technology is usually the barometer of economic development of any nation. Such activities of man have created adverse effects on all living organisms in the biosphere. Rapid industrialisation has left with us polluted rivers, contaminated soil, depleted wildlife and exhausted natural resources. As a result, the environment of today has become foul, contaminated and harmful for the health of living organisms, including man. The unlimited rapacious exploitation of the splendid of nature by man has disturbed the heritage of ecological balance existing between living and non-living components on the earth planet. This undesirable situation created by man has threatened the survival of man himself and other biota on the earth.

It is a common knowledge now that a crisis of global proportion is, and has been affecting the human environment, through pollution of the atmosphere and of maritime, coastal, and inland water, through depletion of rural lands, through destruction of ecological balance of natural areas and through the uncontrolled depletion and ravaging of the world natural resources. Therefore, the historic United Nations conference on the Human environment held in Stockholm from 5-16 June, 1972, pursuant to the United Nations General Assembly Resolution of December 1968, represented the first major effort to solve the global problem of protection and improvement of the human environment by international agreement on a universal a level as possible (Stark, 1989:405). Large numbers of environmental guidelines were drawn in the conference.

To protect the environment from the adverse effects of pollution, many nations worldwide have enacted legislation to regulate various types of pollution as well as to mitigate the adverse effects of pollution. For instance, Nwafor (2006:33) observes that Clean Air Act of 1956 and the Electronic Waste Recycling Act or Senate Bill 50 was signed into law in 2004 by the government of the United States of America (USA). The bill provides for the



establishment and funding of a programme for consumers to return, recycle and ensure safe and environmentally sound disposal of covered electronic device. Pollution control is a term used in environmental management. It means the control of emissions and effluents into air, water or soil. Without pollution control, the waste products from consumption, heating, agriculture, mining, manufacturing, transportation and other human activities, whether they accumulate or disperse, will degrade the environment.

The health of the environment is a good indicator of the health of any nation. Governments have a duty to give the environment topmost priority beyond mere political pronouncements. The ravages of pollution, deforestation/desertification, and erosion and sundry manifestations of environmental degradation show that much still needs to be done to ensure environmental protection in Nigeria. A wide gap exists between pronouncements and action and this need to be urgently closed because the vast majority of Nigerians live close to the environment.

It is against this backdrop that this paper examines some of the environmental policies and laws in Nigeria and their effectiveness to aid a healthy environment in the country and suggests policy options that will allow Nigerians to live a healthy life

## **2. Literature Review**

### *Theoretical Framework*

The study adopts the theory of Environmentally Responsible Behaviour (ERB) which serves as a foundation upon which the discussions on this study are based. According to Elijah (2017), the theory of environmentally responsible behaviour was proposed by Hines, Hungerford and Tomera. The model argues that possessing an intention of acting is a major factor influencing ERB. It is an intention to act and have locus of control. On environmental management, the theory of Environmentally Responsible Behaviour hinges on the way and manner by which individual behave to the management of environment. Individual, apart from having the environmental knowledge which could prompt them to have a good attitude which could translate to good intentions to act; individuals may go through the internal and external control, such as being influenced by actions of others towards the environment. The policies and law initiated by government also could be seen as an attitude towards the management of the environment. If the attitude or efforts of individual and government fail to provide desirable environmental friendly to inhabitants, it means that the theory of Environmental Responsible Behaviour's objective has been defeated. This is the picture of what is obtainable on the environmental management by individuals and government in Nigeria.

### *Conceptual Clarification*

The concept of environment, in its broadest sense is defined as including water, air, soil, flora and fauna. According to Marie-Louise (2009:156) in the 1972 Stockholm Declaration, environment is also 'especially representative samples of natural ecosystems' are included



in the definition. The term environment could be said to cover all those elements which in their complex inter-relationships from framework, setting and living conditions for mankind, by their very existence or by virtue of their impact. Marie-louise (2009: 156) also cited the New Zealand Environment Act of 1986, where the environment is defined as including: ecosystems and their constituent parts; all natural and physical resources; and the social, economic, aesthetic and cultural conditions which affect the environment or which are affected by change to the environment

According to Marriam-wesber dictionary (1828)'s definition of environment, it is the circumstances, objects, or conditions by which one is surrounded. It is also the complex of physical, chemical, and biotic factors (such as climate, soil, and living things) that act upon an organisms or an ecological community and ultimately determine its form and survival. It is the aggregate of social and cultural conditions that influence the life of an individual or community.

Meanwhile, policy is a course of action adopted by any given society or an organisation. It is often referred to as the laws, regulations, administrative guidelines, procedures and finding criteria established by a given society or an organisation (Yusuf, 2019:1). Policy is the general principles by which a government is guided in its management of public affairs. As applied to a law, policy is ordinance, or Rule of Law, the general purpose or tendency considered as directed to the welfare or prosperity of the state or community. Now environmental policy is a written statement, usually signed by senior management, which outline a business' aims and principles in relation to managing the environmental effects and aspects of its operation. Environmental policy is a policy that pertains to our interactions with our environment. Its main goal is to regulate resource use or reduce pollution to promote human welfare and or protect natural system.

#### *Environmental Policies and Laws in Nigeria*

Most scientists agree that if pollution and other environmental deterrents continue at their present rates, the result will be irreversible damage to the ecological cycles and balances in nature upon which all lives depend. Scientists warn that fundamental, and perhaps drastic, changes in human behavior will be required to avert an ecological crisis. To safeguard the healthful environment that is essential to life, humans must learn that the earth does not have infinite resources. Th earth's limited resources must be conserved and, where possible, reused. Furthermore, humans must devise new strategies that mesh environmental progress with economic growth. The future growth of developing nations depends upon the development of sustainable conservation methods that protect the environment while also meeting the basic needs of citizens (ERA, 2015:2).

Many nations have acted to control or reduce environmental problems. For example, Great Britain has largely succeeded in cleaning up the waters of the Thames and other rivers, and London no longer suffers the heavy smog caused by industrial pollutants. Japan has some of the world's strictest standards for the control of water and air pollution. In Canada, the





Department of Commerce has developed comprehensive programs covering environmental contaminants (ERA, 2015: 4).

In the United States, the Environmental Protection Agency (EPA) was established in 1970 to protect the nation's natural resources. In addition, the U.S. Congress has provided governmental agencies with legislation designed to protect the environment. Many U.S. states have also established environmental protection agencies. Nigerians see the utilitarian as well as aesthetic nature of their environment. They see the inherent opportunities for meeting their needs through farming, games, fuel and fishing. The environment is indeed the source of diverse resources upon which life is sustained. The process or mode of extraction utilised to meet that end can reverse this life-giving relationship. Thus the environment that gives life can also become a lethal space.

During the colonial era, regulation of economic activities, considered significant for the realisation of economic interest of the colonizer, for the purpose of protecting the environment was not popular among policy makers. If at all, it was mostly restricted to public health and sanitation. Today general notion of environmental concerns go little beyond the infamous monthly environmental sanitation exercises and demolitions of alleged illegal structures. The question of determining the role played by Nigerian state in this process requires understanding, conceptually, the character of environmental policy making, legislations and implementation processes in Nigeria. There are several environmental policies and legislations in Nigeria with responsibilities of environmental protection as a measure to address environmental problem.

ERA (2009) is of the view that there are two phases of environmental regimes in Nigeria: the era before 1988 and post-1988. The former consist of laws, including those formulated by the colonial state, in which protection of the environment from oil exploration and production activities was supposed to be implanted. In this era, there was neither a national policy on environment nor concern for protection of the environment. These regimes took the form of Acts, Decrees, Legislations and Edicts. Although many of them cannot stand alone as environmental laws, they are embedded in other substantive laws or policies that can be invoked for the protection of the environment. The Minerals Act (CAP 121) of 1958, for example, has provisions for measures that must be taken to prevent and regulate pollution of ecosystems. This, to some extent, is admirable, for a colonial government, habitually berated for being insensitive to socio-economic and environmental needs of the colonized.

The Petroleum Act of 1969, amended by Decrees No.16 of 1973, No. 49 of 1976, and No.37 of 1977, has remained a major law environmental law in oil and gas industry in Nigeria. It vests ownership of petroleum in the state. It also makes provision for protection of pollution of inland waters, rivers, water courses, the territorial waters of Nigeria or the high seas by oil, mud or other fluids or substances which might contaminate the water, banks or shoreline or which might cause harm or destruction to fish, water or marine life





and where any such pollution occurs or has occurred, shall take prompt steps to control and if possible, end it. Full enforcement of this law is currently lacking. This remains an obstacle to protecting the environment from oil pollution (ERA, 2009).

The post-1988 era is marked by rules, regulations and standards on the protection of environment in Nigeria beginning from 1989. It is instructive that Nigeria signed most of its international treaties and conventions on environmental issues during this era. For example, Nigeria signed the international Oil Pollution Response Co-operation Convention in 1990. It also formulated the National Oil Spill contingency Plan in that year, for which the National Oil Spill Detection and Response Agency (NOSDRA) is expected to coordinate its full implementation. Following adoption of the International Convention for the prevention of pollution of the sea by oil in 1954, the Oil in Navigable Waters Act was formulated in 1968 (ERA, 2015: 2). There has been no substantial progress in the implementation of both the Minerals Act and the Petroleum Act of 1969 especially in the areas of monitoring and control of effluent discharge, oil spill contingency plan, oil spill records and so on. Other environmental policies and legislations in Nigeria that are of relevant to examine in this paper include:

Constitution of the Federal Republic of Nigeria (1999): the constitution as the national legal order recognises the importance of improving and protecting the environment and makes provision for it.

-Sections 20, 12, 33 and 34 make it an objective of the Nigerian state to improve and protect the air, land, water, forest and wildlife of Nigeria; establish, though impliedly, that international treaties (including environmental treaties) ratified by the National Assembly should be implemented as law in Nigeria; sections 33 and 34 which guarantee fundamental human rights to life and human dignity respectively, have also been argued to be linked to the need for a healthy and safe environment to give this rights effect.

*National Policy on Environment (NPE)*: An international workshop, which held from September 12 to 16, 1988 in Lagos, lead to an end of the pre-1988 era. The workshop introduced the new era by setting the stage for the emergence of an NPE which was previously non-existent. Nigeria is committed to a national environmental policy that will ensure sustainable development based on proper management of the environment. This demands positive and realistic planning that balances human needs against the carrying capacity of the environment. This requires that a number of complementary policies, strategies and management approaches are put in place which should ensure, among others, that: Environmental concerns are integrated into major economic decision- making process; environmental remediation costs are built into major development projects; and economic instruments are employed in the management of natural resources; environmentally friendly technologies are applied; (ERA, 2015)



*Environmental Impact Assessment Decree (EIA)*: The promulgation of the Environmental Impact Assessment Decree (EIA) No. 86 of 1992 has been a milestone in the provision of opportunities for involvement of local communities in the prevention of oil pollution. Unfortunately, this has not been realised. The Act has potential for the promotion of environmental democracy across the nation because it requires the participation and consultation of communities wherever large-scale projects are to be executed or where major land conversions are proposed to take place. It provides a tool for community engagement when lands are to be taken up for plantations, farms, industrial set-ups, etc (Eneh and Agbazue, 2011:495).

*Federal Environmental Protection Agency (FEPA)*: This agency was established as a result of illegal dumping of toxic wastes of Italian origin on Nigeria soil at Koko in Delta state. The uproar created by this illegal action led to the establishment of this agency. It was established by Decree N0 58 of 1988 (Adekola, 2011:49). The agency was fully accredited as the official Ombudsman of the nation's environment, an umbilical cord that connects FEPA and National Policy on Environment. The law established the agency, among other things to establish and prescribe national guidelines and standard for environmental management, such as water quality, air quality, noise levels etc, and to monitor and control the movement of hazardous substances, and supervise and enforce compliance with environmental law so that pollution can be prevented and controlled (Agbu, 2005:58).

*Land Used Decree Act (1978)*: This Act places the ownership, management and control of land in the states of the federation through the office of the Governor of each state. The land is held in trust and administered through the government authority to the use and benefit of Nigerians. Prior to Land Used Decree of 1978, the 1965 Grazing Reserve Law had been enacted with legal backing to the acquisition of grazing reserves. The law gave the then regional governments and Native Authorities powers to acquire native land and constitute in to grazing reserves (Agu, 2005 ).

*National Environmental Standards and Regulation Enforcement Agency (NESREA) Act 2007*: This Act replaced the Federal Environmental Protection Agency (FEPA) Act. It is the embodiment of laws and regulations focused on the protection and sustainable development of the environment and its natural resources. NESREA has several regulatory bodies under it, which include: National Effluent Limitation Regulations, National Environmental Protection (Pollution Abatement in Industries and Facilities Producing Waste) Regulations 1991 and the Federal Solid and Hazardous Waste Management Regulations (1991). These regulatory bodies under NESREA are charge with the responsibilities of regulating the activities of industrial and other companies on the protection of environment (Eneh and Agbazue, 2011: 494).

*Water Resources Act 101 (1993)*: This law vests on the Federal government of Nigeria through the Federal Ministry of Water Resources, the right to regulate, develop and license



all water operators in Nigeria. There are several water regulation agencies in Nigeria which include: National Water Ways Authority, River Basing Development Authority, the National Water Resources Institute, Nigeria Shippers Council, National Maritime Authority and National Agency for Food and Drug Administration and Control (NAFDAC). There is also Navigation Waters Act provides for the implementation of the international convention for prevention of pollution of sea by oil and provide for remedies against such pollution (Christopher, 2004:160).

*Nigerian Urban and Regional Planning Act, Cap N138, LFN 2004:* This Act is aimed at overseeing a realistic, purposeful planning of the country to avoid overcrowding and poor environmental conditions. In this regard, sections 30 (3), 39 (7), 59 and 72 require a building plan to be drawn by a registered architect or town planner; an application for land development would be rejected if such development would harm the environment or constitute a nuisance to the community; it is an offence to disobey a stop-work order with a fine not exceeding N10,000 (Ten thousand naira only) and in the case of a company, a fine not exceeding N50,000; provide for preservation and planning of trees for environmental conservation(ERA, 2015).

*Harmful Waste (Special Criminal Provisions) Act, Cap HI, LFN 2004:* This Act prohibits, without lawful authority, the carrying, dumping or depositing of harmful waste in the air, land or waters of Nigeria. Sections 6, 7 and 12 provide relevant punishment for the offenders (ERA, 2015).

*The Environmental Impact Assessment Act:* The environmental assessment Decree No 86 of 1992 has come as a fitting compliment to the FEPA Decree in the important area of land utilisation and siting of industries. The principal goal of this enactment was stated under section 1 which is to ensure that possible negative impacts of development projects are predicted and addressed prior to any project take-off. The effect of this is to promote sustainable development. The second phase of this assessment is referred to as environmental audit. This process which culminates in the writing of an environmental audit report compliments the process of an environmental impact assessment and in some instances supplement it. In furtherance of the objectives of this Act, FEPA established saddled with the responsibilities of ensuring enforcement and compliance with provision of the act in every aspect of the nation's development efforts. It is clear that this Act provides machinery for enhancing sustainable development in Nigeria but how far has this been achieved not to be exercised arbitrarily. There is a provision for giving a hearing to interested parties and members of the public if their interest would be injuriously affected ((Eneh and Agbazue, 2011).

*The Mineral and Mining Act:* The process of minerals and mines exploration and exploitation is one that can result in serious environmental degradation and damage. Section 65 of the Act prohibits the pollution and causing to be polluted any water or water course by any person in the course of mining or prospecting for minerals. Furthermore,



section 33(4) mandates any holder of a prospecting right upon completion of prospecting operations to fill up any shafts wells, holes or trenches made by him and to restore the land to its original state. Section 254(1) of the Act provides for the establishment of the mines field police (drawn from Nigerian police) for the purpose of enforcing compliance with the provision of the Act and of regulation made there under (Uche, 2000). All the above provisions, inter alia, are geared towards sustainable use and exploitation of the environment. We however wonder as to the failure to establish the minefield police as provided under the section. One then wonders if the entire minefield which has resulted into death of many was not dug by miners and they are still there. And the important question at this juncture is, how many arrest have been made by mine police since the inception of the above provision.

*The Harmful Waste (Special Criminal Provision Etc) Act 1988:* The Act was enacted with the specific object of prohibiting the carrying, depositing and dumping of hazardous wastes on any land, territorial waters and matters relating thereto. This Act is essentially a penal legislation. Doing any of the acts or omission stated in the section 12 of the act constituted the offences. The jurisdiction of the Act is far reaching as it sought to remove any immunity conferred by diplomatic immunities and privileges Act on any person for the purpose of criminal prosecution (Eneh and Agbazue, 2011: 493). It however important to note that despite its far reaching jurisdiction, it focuses mainly on criminal prosecution of damage and does not provide compensation to the victim of the damage.

There are also Nigerian national environmental laws derived from international laws. Between 1963 and 1990, Nigeria is signatory to a number of international laws, including Mineral Oil (Safety) Regulations Act 1963, Petroleum Regulations Act 1967, Oil in Navigable Waters Act 1968, Petroleum (Drilling and Production) Regulation Act 1969, Oil Terminal Dues Act 1968, Associate Gas Reinjection Act 1979, Petroleum Amendment Act 1973 and Harmful Wastes (Criminal Provisions) Act No. 42 of 1988.

Some other diverse pieces of legislation, which fall within the ambit of environmental protection, include Civil Aviation Act 1964, Antiquities Act 1915 (1958), Live Fish (Control of Importation) Act 1965, Explosives Act 1964, Territorial Waters Act 1967, Exclusive conomic Zone Act 1958, Petroleum (Drilling and Production) Regulations Act 1969, Nigerian Atomic Energy Commission Act 1976, Natural Resources Conservation Act 1989, River Basin Development Authorities Act 1987, Sea Fisheries (Licensing) Regulations 1992, Quarries Act 1969, Land Use Act 1972 and National Parks Acts 1991

### **3. An Overview of Environmental Management in Nigeria**

There are clear indications that the environment is depleted across the world, which could be natural in origin, or cause by human activities. There are a number of ways in which environmental degradation can happen. In a classic case, resources simply become depleted. The daily visible pollution, abuse of, and threat to the ecological system, posted by the impact of man's activities, technological and industrial development on the essential



components of the natural environment of Nigeria, that is, the air land and water belie any appearance of complete ignorance on the part, of Nigerians environmental management agencies (Adekola, 2011:50). Man`s mismanagement of the environment in the form of oil spills, gas flaring, dumping of hazardous substance on human habitation and other environmental abuse constitute the major factors to environmental degradation and consequently have negative impact on national security. In theory, therefore, effectiveness of Nigeria`s environmental policies and laws could be ascertained from the comprehensiveness of its environmental regimes, but in practice, effective enforcement of such rules and policies do not look promising. It is on this note that paper examines environmental abuse and management on land, in water, in the air, during mineral exploration and forest management in relation to Nigeria`s environmental laws and their respective management agencies. The paper also analyses lack of compliance to these laws by people as well as poor enforcement of the laws by the agencies (Adekola, 2011:50).

Land degradation occurs when the value of the biophysical environment is affected by one or more reasons. Land degradation remains an important global issue for the 20<sup>th</sup> Century because of its adverse impact. Land degradation is caused by agricultural practice, take many forms and has many causes which include overgrazing soil erosion, soil sanitation (build up of salts in soil that result in irrigation in certain situation); water logging, conversion of tropical forests to agriculture. It is noteworthy that land is considered deteriorated when its productivity is diminished. The World Resources Institute and United Nations in a 1990 cited by Adekola (2011) survey estimated that the productivity of 17 percent of the earth`s vegetated land surface has been decreased by human activity. This is equal to the land area of Africa. This figure includes land other than agricultural land in particular. The World Resources Institute estimated in 1998/99 that each year, irreversible degradation claims 3-6 million hectares of cropland. This translated in to a loss of almost ½ of 1% of global cropland per year.

It was reported in the World Bank report of 2008 cited by Adekola (2011) that in the Northern part of Nigerian, increasing needs for food and firewood have resulted in the deforestation and cultivation of steep slopes, causing severe erosion. In addition to the problem is the loss of prime cropland to industry, dams, urban sprawl and highways. Furthermore, soil erosion is accelerating every part of Nigeria and is degrading up to one third of the crop and posting a significant threat to the food supply.

Evidently, it is obvious that Nigerians do not have respect for the rules and regulations that guide the activity of man on environment. Lands are forcible allocation to themselves without approved plan and permission from the constituted authority. There are many illegal constructions built on erosion channel, blocking the water pathways and dumping of refuse on water ways, this practice leads to diversion of erosion, causing severe damage on property and destroying surface of the earth. For instance, in August, 2011, there were massive floods record in The National Newspaper of September17 2011 in Ibadan,



University of Ibadan was badly affected with over N1billion naira worth of property destroyed.

Today in Nigeria, the Town Planning rules are neither obeyed nor enforced. There are buildings under high tension wires and sewage land. Many houses that were pulled down in the Nigerian Federal Capital (Abuja), during El-Rufai's administration as FCT minister are typical examples. Lands, in Nigeria, were acquired illegally and houses were built on them without approved plan, distorting town planning system which would have provided healthy environment. This practice is commonly found in the cities in Nigeria.

Northern Nigeria is severely threatened environmentally. The area is semi-arid and experiences variable and unpredictable rainfall, overgrazing and seasonal fires, combined with poverty, increasing violence and population growth. Desertification is a major problem in at least eleven states in this zone: Adamawa, Bauchi, Gombe, Borno, Yobe, Jigawa, Kano, Katsina, Zamfara, Sokoto and Kebi States. Nigeria is said to be losing about 351,000 km<sup>2</sup> to desertification representing 38% of its total land mass. Legislations aimed at tackling the problem do exist. These include the National Environmental (Desertification Control and Drought Mitigation) Regulations of 2011. Effectiveness of these legislations, however, depends on the role being played by affected communities. At the moment such roles are undermined and removed from the policy process. The policies and implementation are rather top-down and propolicy elite, who are far removed from the direct impacts of the problem (Eneh and Agbazue, 2011:495).

On the aspect of water, it is a universal resource and free occurrence in nature, is often taken for granted and abused, especially in third world nations where information on its use and management are neither readily accessible nor disseminated to society. Abundant as it may be, water, in its clean state, is one of the elements in the word (Omole, *et al.*, 2010; 35). In order to prevent abuse, of the element of water, it is guided and protected by a body of laws, politics and regulations.

In spite of enormous laws and regulatory agencies, Nigeria waters remain unsafe, contaminated and polluted. Omode, *et al.*, (2010) assert that industries are the leading surface water pollution in Nigeria because of the high volume of water required to carry out their economic activities. Study carried out by FEPA in 1995 on 200 industries in Lagos revealed that only 18% of them performed any form of primary treatment on their waste water before discharging them into nearby surface water. This shows that twenty years after the publication of PEPA guidelines in 1991, industries are still flouting the standards. Though recent statistics are not available, not much has changed in terms of improvements from the scenario of 1995. Surface water in Lagos continue to be openly polluted with impunity, just as law enforcement agencies look on helplessly (Omode, *et al.*, 2010).



The World Health Organisation (2006) reported the contamination of ground water in the coastal environment in Nigeria, which shows that the ground water in Port-Harcourt, a town in the oil producing region had MPC of 1.8 milligrams per liter in 1987 as against 0.1 milligram per liter recommended by World Health Organisation. Furthermore, oil spill and dumping of chemicals in the rivers and ocean damage coral reef, which are beauty of the ocean and river. Examples of this lie within the coast lands of Niger-Delta (Adekola, 2011:53). Vast areas of Mangrove Wetland have been lost. Coral reefs continue to suffer degradation and the total fish available for catching is declining. The lost is attributed to frequent oil spills and dumping of hazardous chemicals in the water as a result of the activities of oil exploration in the area. Policies put in place by government to address this kind of water pollution could not as it is poorly implemented.

Emission of organic pollution as a result of industrial activities is responsible for rapid deterioration of water with definite health consequences for human pollution. There are a number of specific environmental issues relating to the Nigeria water resources. First, there is the problems of emissions of industries pollutants from industrial industries as mentioned earlier, with main polluting substance identified to include organic matter, metal, minerals, and sediments, bacterial and toxic chemical. Christopher (2004) asserts that estimated emission of organic water pollutants in Nigeria in 1980 amount to 72.082 kg per day and this rose to 82.477 kg per day in 2000, representing 14.4% increase over the period. This places the country as the third heaviest water polluter in Africa in 1980 and the fourth in 2000.

A recent study of the discharge of heavy metals into the Challawa River in Kano can be taken as an indication of the level of pollution of water bodies by industries in Nigeria's key cities. The environment is impacted negatively by heavy metals in industrial effluents into water bodies including River Challawa in Kano, Nigeria. Like other rivers, the Challawa River is used for many purposes including irrigation, fishing and water supply. Levels of heavy metals in such rivers exceed the maximum permissible limit of Nigeria and WHO (ERA, 2015)

Summarily put, it is unfortunate that despite enormous laws and regulatory agencies in Nigeria, water remains polluted, contaminated and unsafe. Hence, the ineffective enforcement of environmental laws and attitude of Nigerians and companies need to be rebranded with pro-active measures so as to have sustainable national security,

Air is a mixture of gases that compose the atmosphere surrounding earth. These gases consist primarily of the elements nitrogen, oxygen, carbondioxide, water vapour and others. The most attribute of air is its life sustaining property, human and animal life which would not be possible without oxygen in the atmosphere Despite industrialised countries' improvements on air quality by reducing particular matter and toxic chemicals like leads, emission of sulphur dioxide and nitrous oxide, the precursors of acid deposition still remain.





In Nigeria, the level of air pollution is enormous. The daily release of associated gas which is separated from oil at flow stations in the oil producing region has been blamed for some health problems such as asthma, bronchitis, skin problems and breathing problem in the Niger Delta communities (Orubu; 2010). Environment is also polluted by toxic substances. These are synthetic chemicals that enter the environment and persist there for a long period of time. Major concentration of toxic substance occurs in chemical dump sites. If they seep into soil and water the chemical can contaminate water supplies, air, crops, animals and it has been associated with human birth defects, miscarriage and organic diseases. For instance, in year 2000 when SPDC injected or dumped suspected substances of 1,200 litres into well 3, Isoko in Delta State, Nigeria, the toxic waste was a major threat to over 50,000 inhabitants of Erovie communities in Ozoro, Delta State. It polluted the atmosphere with harmful odours. People were reporting strange ailment. About 93 people including pregnant women were reportedly killed as a result of direct contact with dumped waste. Hundreds of people contacted various diseases from the waste dump.

Sometime in 2015 in Kwara state, the refuse were dumped in several places by the Kwara state Ministry of Environment as a result of which nearby communities in these areas were and are contacted various ailments. Olooru community in Moro Local Government is one of the places affected by this. Youths in Olooru and surrounding communities protected and disallowed the vehicles carrying this refuse to come to the dumping site.

To combat the scourge of pollution and related issues in Nigeria, there are some latent laws put in place by the Nigerian government analysed in section 2 above. Generally, these laws and enforcement agencies have neither been effective in curbing ecological damages caused by oil pollution – gas flaring, oil spill and dumping of hazardous substance nor have they been able to prevent activities deleterious to the Nigerian environment. The laws deal with only measures to prevent pollution while they are silent on the consequences that should follow when pollution occurs. Summarily put, if national security entails the wellbeing of people and air pollution affects adversely the lives of the people, the pollution of atmosphere has adverse effect on nation's security.

Under the Nigerian legal system, forestry laws are essentially statutory laws. These are laws passed by a legislative body, be it under a military government or under civilian democracy. The subject of agriculture falls under the concurrent legislative list in the Nigerian constitution. Consequently, both the federal and the state governments are empowered to make laws on agriculture. In actual practice, the bulk of the laws on forestry are made by each state of the federation, taking into cognizance their peculiar geographical features (Peter; 2006:3).

Nigerian forests have been drastically destroyed as a result of human activities. It was reported by the World Bank (2008 cited by Adekola, 2011) that human activities have had a major impact on the loss and degradation of Africa's tropical forest. Between 1990 and 2000, an estimated 5 million hectares (13 million acres) of forest were lost in Africa. The





destruction has been especially significant in Madagascar and in West African countries such as Nigeria, Ghana and Cote d'Ivoire where population growth and agricultural development have been rapid. Economic development schemes have harmed forests in Nigeria. Forests have been cleared for large – scale plantation agriculture, flooded under reservoir by the construction of dams and in the case of oil region, harmed by development and pollution related to petroleum exploitation.

It was reported in the Nigerian *Guardian* of 5th August, 2010:28 “with oil exploration and exploitation that takes place in the marginal oil fields in the forest area, carbon emissions threaten and impact on ocean beds, aquatic life and coastlines, tackling flooding in Akwa Ibom, especially in the areas neighboring the forest reserve. The forest in the region, one of Nigeria's 445 forest reserves, when first placed in government gazette in the late 1950, had an area of 310km<sup>2</sup>. By 1990s, owing to logging, farming and oil exploration, it had shrunk to about 90 square kilometers”. Its gradual loss exposes coastal communities to the unmitigated bashing of sea water.

This development is worrisome, considering the legal mechanism and management structure put in place. Even as Nigeria is party to international agreements like Desertification Convention and Oil Pollution Preparedness of Marine and Coastal Environment, this devastating and catastrophic forest destruction still persists as Nigeria and its law enforcement agents could not help the situation.

Nigeria has one of the highest rates of deforestation in Africa and this is not because there are no policies, laws and regulations. Apart from the national forestry policy, some states in Nigeria equally have laws governing forestry in their territories. There is also the Forestry Law, Cap 55, the National Park Services Act of 1999 and the contentious Land Use decree of 1978. The National Park Services Act allows the right of communities to participate in the management of the parks. How this works out in reality is contestable. The Forestry Law, Cap 55 also allows for community management of forests but realizing this requires strenuous efforts by communities. Forest conservation in Nigeria faces many challenges including conversion into plantations of rubber and palm oil as well as the entry of UN-REDD programmes (Nwifo, 2010: 494). It is feared that the REDD programmes will bring about restricted access to community forests and human rights infringements while at the same time tacitly granting the rich countries the right to pollute at home thereby compounding the threat of climate change that it is supposed to reduce. Dependence on fuel wood for energy is a serious challenge all across Nigeria, and more so in forest deficit zones such as Northern Nigeria. Careful management of forest resources would help the situation if holistic approach is adopted and built with close collaboration by communities.

On mineral exploration, the British started tin mining operations in Nigeria in 1904 and were mining gold deposits by 1906. The mining Act was enacted in 1946 to regulate the growing mining sector (Uche; 2000:1). Throughout the history of mining and irrespective of the differences in jurisdiction, geology, technology and otherwise, the high risk nature of



mining has not changed. Despite development which oversees the management of all mineral resources, there are cases of illegal mining of mineral resources across the country, which has caused serious devastating depletion on Nigeria environment. The mining law, which is codified in the Federal Minerals and Mining Act of 1999 could not arrest this ugly situation with adverse effects on the environment and livelihoods of people. This has resulted in continued destruction of the earth crust through excavations in underground mines and surface excavation in open pit, sending dust particles into the atmosphere. It is obvious that mining have ecological effects. According to Uche (2000), a report of environmental officials with the government of Plateau State indicates that 1,100 tin and columbite mines, abandoned after the mining boom of the 1960s, now pose serious health risks to as many as million people living in the area. Radioactive mine tailings were reported to be a danger to local people living around mining fields in Jos, Barikin-ladi, Bassa and Riyom districts.

After independence in 1960, the Nigerian government neglected the mining industry in favour of the more lucrative oil sector. For more than five decades of oil explorations and exploitations in Nigeria, there is surprising little good quality independent scientific data on the overall or long-term effects of hydro-carbon oil pollution on the inhabitants. Oil led development has clearly and seriously damaged the environment and the livelihood of people in the area. There are numerous cases of oil spills and gas flaring as a result of exploration and exploitation of oil in Niger-Delta, which pollute and deteriorate Nigerian environment. Despite series of laws regulating oil exploration and exploitation are in place which includes: the petroleum Act of 1969, the Associated Gas Re-Injection Act Cap 26 etc. as earlier mentioned in section 2, the catastrophic destruction of the environment by oil exploration and exploitation continues.

Oil exploration and refining disrupts the fragile and dynamic equilibrium of the natural environmental complex. The meta-stable parameters of the cobweb are altered. It is noted that the seismic method employed by oil prospecting companies in the search for crude petroleum involves the detonations of these explosives and send shock waves and vibrations into the earth's crust, thereby causing some level of damage to the earth's lithosphere materials. Hyginus (2003) opines that oil spillage activities have far reaching implications on the soil structure. The presence of crude oil increases the anaerobic bacteria which induces the content of oxygen in the soil, thereby altering the structuring and textural characteristics of the soil. The oil producing region of Nigeria is threatened by agricultural expansion as a result of oil pollution. For instance, Agbu (2005) reported that about 3000 spills incidents were reported by the company operating in Nigerian. Indeed, within this period, over 2 million barrels of oil spilled into the country's terrestrial, coastal and offshore marine environment. Similarly, Nigeria's former minister of environment, Mr. John Odey, disclosed in August, 24 and 28, 2010 that 3,203 cases of oil spillages occurred in the country between 2006 and 2010.



Despite all these enormous Laws and environmental agencies for the enforcement of the law, pollution and degradation of the Nigerian environment by the activities of multinational oil companies continue helplessly. It is more reasonable to hazard an hypotheses that FEPA and NERSEA inefficiency and that of the Federal Ministry of Environment is not unconnected with the lack of the political will on the part of government functionaries to take pro-active steps in combating the increasing level of environmental pollution, which has negative consequences on Nigerian environment and the people.

On Solid Waste and Sanitation, the handling of solid and liquid wastes in Nigeria leaves much to be desired. Where solid wastes are dumped at designated places, such dumpsites are often abandoned burrow pits from where earth fillings may have been excavated for roads or similar construction works. These pits are neither designed nor built to serve as dumpsites. Hyginus (2003) opines that they are just holes in the ground and convenient spots to keep wastes away from population centres. It would appear that the thinking is that once the mountains of waste are not in sight, then they are safely kept away. But with pits that are not lined, heavy metals and others get leached into the ground waters. Most of our cities do not have integrated sewage handling systems and households and building complexes are served by individual septic tanks and soak away pits. We need little imagination to see that this is not a healthy way to dispose of wastes especially when we know that the constructions of those pits are not closely supervised for quality control. With little by way of recycling of waste products, plastics clog the Nigerian environment causing serious nuisance and drainage blockages.

#### **4. Challenges Confronting Environmental Management in Nigeria**

In spite of enormous policies and laws put in place to manage Nigerian environment, environmental management is confronted with several challenges which include the following: firstly, it is evident that human attach on the environment without regard for the policies and laws put in place by Nigerian government has great post serious threatens the environmental sustainability. There is deforestation as a result of human activities, destruction of threes without replacement; dumping of refuse in unauthorized places; construction of buildings in an unapproved and unauthorized places, etc. depleting the environment. Secondly, it is a known fact that some of the existing environmental policies and laws are anti people and oppressive. This has stood as obstacle for the implementation of these policies and laws. It is observed that many of the policies are outdated and many fragmented. For instance, most of the environmental laws do not properly take care of the inhabitants, especially their living conditions. Gas release in to the air and the oil spill in the land and water without proper care for the health and occupations of the inhabitants is a serious challenge to the environmental management in Nigeria. Thirdly, the existing environmental policies and laws in Nigeria are poorly enforced by the environmental law enforcement agents. The government law enforcement agents are inactive. Despite the enormous policies and laws put in place, the country still witnessed highly environmental



depletion as a result of the activities of people on earth. Land, forestry, water, air and other environmental components are poorly managed and destroyed. Lastly, it is observed that there is lack of political will on the part of the government towards environmental management and inadequate equipments for environmental enforcement agents to forestall any environmental emergency disaster.

### **5. Conclusion and Recommendations**

The paper x-rayed environmental policies and legislations in Nigeria and examined the performance of these policies and legislations in addressing environmental problems. It has been argued that environmental threats are essentially linked to the activities of man and lack of proper or adequate implementation of environmental policies and laws put in place to control and manage the environment. Potential harm that environmental degradation poses to societies and the people globally cannot be over emphasized. Environmental elements like land, water, air, forest management and exploration of mineral resources are extensively discussed. We deduced that human activities on the environment earnestly change the face of the earth, the nature of its atmosphere, and the quality of land, water, air, forest etc.

Thus, many of the policies are outdated and many fragmented. Many of them were not formulated with contributions from informed masses nor based on nationally generated baseline data, but on adapted guidelines and standards approved by the appropriate system of the United Nations, thereby compromising socio-economic and climatic differences. Participation of the people in policy formulation and implementation is lacking. The paper identifies the following challenges: lack of political will on the part of government in the management of the environment; there are some environmental laws that are anti people and oppressive, inadequate environmental equipment to forestall emergency environmental disaster; Nigerians and complex organisations / corporate organisations do not comply with environmental laws put in place to protect the environment and environmental law enforcement agents fail to perform their statutory responsibilities expectedly. They are all watching helplessly on the devastating level of the environment. In this regard, it is suggested that Nigerian government needs to take a proactive measure by comprehensively overhauling the Nigerian environmental laws by addressing the lacunas on them. There is need for reorientation, reorganisation and restructuring of environmental law enforcement agencies is imperative; enlightenment programme as a mechanism to educate the complex organisations and the people on the need to comply with the environmental laws and provision of standardise essential and environmental equipments necessary to forestall emergency disaster. It is then concluded that if these suggestions are considered, Nigerian will have a sustainable environment.

From the above, in order to stem environmental degradation, the study provides the following recommendations: To reduce environmental degradation and for humanity to save its habitats and for sustainable national security, societies must recognise that



environment is finite. As populations and their demands increase, the idea of continuous growth must give way to a more rational used, sustainable exploration of the environment, which can be accomplished only by a dramatic change in the attitude of human species. The human attack on the environment has been compared to the drastic upheavals of the earth. Thus, humanity should recognise that such attack threatens human survival. In this regard, Nigerian government should increase awareness on the need for humanity to change their attitude towards environmental attack and comply to environmental rules and regulations in order to give way for a more rational and sustainable environment.

Government needs to be willing and provides pro-active measures for the management of the environment. Environmental governance must be comprehensive and all encompassing, involving all sectors and stakeholders. Enforcement cooperation at national, regional and global levels through networking, capacity building and human resources development, timely exchange of information and experience amongst stakeholders are essential or the promotion of environmental governance. Nigerian government needs to strengthen regulatory institutions to help them create the necessary framework and mechanisms for monitoring and enforcement of environmental guidelines.

Some of the environmental laws in Nigeria are anti people or oppressive, therefore, there is the need for comprehensive legislation to tackle the problem of oil pollution in particular and industrial pollution in general. Government needs to comprehensively overhaul all environmental laws that are oppressive and anti people.

The need for reorientation, reorganisation and restructuring of the environmental law enforcement agencies is essential for them to perform their statutory responsibilities efficiently. Training and retraining of personnel of environmental law enforcement agencies is essential. Motivation of these personnel in terms of salary and allowances is also imperative for them to do their job efficiently and effectively.

### **References**

- Adekola A.A. (2011). National security and environmental degradation: Challenges and prospects. *Springboard Journal, Volume 3 NO 1 2011*, Al-Hikmah University, Ilorin
- Abhijik N. (2010). What are the effect of environmental degradation? [www.wsegeek.com](http://www.wsegeek.com)
- Agbu O. (2005). Oil and environmental conflict in Hassan Saliu (ed.), *Nigerian under democratic rule 1999-2003 Vol 2*. University Press: Ibadan
- Chrostopher O. (2004). Water resources, environment and sustainable development in I. B. Bello-imam and Mike Obadan (eds). *Democratic governance and development management in nigeria's fourth republic 1999- 2003*. CLGARDS: Ibadan
- Elijah, A. A. (2017). Theories and concepts for human behaviour in environmental preservation. *Journal of environmental science and public health*. [www.fortunejournals.com](http://www.fortunejournals.com)



- Eneh C. and Agbazue (2011). Protection of nigeria's environment: A critical policies review. *Journal of Environmental Science and Technology* Vol. 4
- ERA (2009). *Wanted: A new approach to niger-delta conundrum*. The nation newspaper; April 10, 2009
- ERA (2015). *Making policies work: Between environmental policies and environmental protection* [eraction@eraction.org](mailto:eraction@eraction.org)
- Hyginus B. (2003) *Niger-Delta Environment, its Local Geography*; Prelyn Publisher; Port-Harcourt
- Mahir, S. (2014). A different kargo: Sub-saharan migrants in istanbul and African commerce. *Journal of Urban Antropology*. Vol.43 (1,2,3) 2014
- Marie-Louise, L. (2009). *Legal definitions of the environment and environmental damage*. Stockholm Institute for Scandiavian law pp.156
- Marriam-Webster (1828). *Definition of environment* [www.marriam-webster.com](http://www.marriam-webster.com)
- Nwafor, J.C., (2006). Environmental impact assessment for sustainable development: The nigerian perspective. *Environment and Development Policy Centre for Africa*: Enugu.
- Omole et'al (2010). Water resources: Use, abuse and regulations in nigeria. *Journal of sustainable development in Africa*: Volume 12, N0 2, 2010
- Orubu, C. (2010). Gas Flaring and Associated Carbon Dioxide Emission: A Critical Assessment of Years of Flare Reduction Policies in Nigeria in Bello-imam (ed.) *50 Years of Nigerian Project: Challenges and Prospect*. College Press Publisher Ltd: Ibadan
- Peter O. (2006) *Application of the Forestry Law in Forestry Management*; A paper Presented at the One Day Legal Workshop for Stakeholders in the Forestry Industry in Edo State, Organised by the Edo State Ministry of Agriculture and National Resources; The Ogba Zoological Gardens, Benin City on September 2, 2006
- Uche (2000) *A legal Guide to Investing in Nigeria's Mining Sector*; A Paper Presented at Mining 2000 Seminar, Centre for Energy, Petroleum and Mining Law and Policy; University of Dundee, Scotland, June, 2000



## FDI, EXPORT AND GDP PER CAPITAL IN AFRICAN COUNTRIES: A GMM ESTIMATION

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### Abstract

*This study seeks to investigate empirically the effect of FDI and Export on GDP per capital using sample of 40 African countries for the period 2005 to 2019 applying the GMM technique of estimation. The result of the study revealed that FDI posits a negative and statistical significance effect on GDP per capital in the short run. Export has a positive and statistical significant effect on GDP per capital in the short run. In the long run, FDI has a negative and significant long run effect on GDP per capital and export has a positive and significant effect on GDP per capital. There is also a long run causality effect among export, FDI and GDP per capital in African countries. This implies that FDI and Export granger causes GDP per capital in the long run.*

**Keywords:** Export, Foreign Direct Investment, Generalized Method of Moment

### 1. Introduction

The economic situation in Africa remains overwhelming amid the slowdown in the global economic crisis, lingering effects resulting from the collapse in commodity prices though situations are widely divergent across sub regions. East Africa and North Africa are improving, but growth in West, Central and Southern Africa remains inadequate to meet mounting development challenges. GDP growth for the region as a whole is projected to increase moderately from 2.9 per cent in 2019 to 3.2 per cent in 2020. Africa continues to face difficulties in achieving the more robust and sustained growth path that is needed to enhance living standards across the continent. GDP per capita growth is unlikely to reach much above 1 per cent in the near term. More broadly, this decade is ending with average GDP per capita growth of only 0.5 per cent—well below the average growth of the previous decade and only marginally higher than average per capita growth in the 1980s and 1990s (see United Nation, 2020). However, GDP per capital in the period 1972–1979 stood at 1.4%, in the period 1980–1989, it fell as low as -0.4%. Subsequently, in 1990–1999, it pegged at -0.1%. GDP per capital witnessed a significant increase in 2000–2009 where it rose to about 2.7%, similarly, in 2010–2019 GDP per capital fell as low as 0.5% United Nation (2020). The low export diversification is one index reducing GDP growth and per capital increase in Africa (African Economic Outlook, 2020). On FDI inflow, Africa witnessed the fastest growth globally compared to developed economies in 2018 despite economic rigidities and shocks in the market. For instance, Africa received 11





percent of global FDI compared with negative global flows (-13 percent) and flows to developed economies (-27 percent) and Asia (+4 percent African Economic Outlook 2020). Several studies have reported mixed evidences on the relationship between FDI, Export and GDP per capital, most studies are on single country analysis and cointegration test are used. To the best of researchers' knowledge, relatively few studies exist on export, FDI and GDP per capital on African countries (see Foster 2006; Asfaw 2014). These studies employ the GLS technique although such technique does not account for endogeneity problem. While few studies have empirically estimated FDI Export nexus, they are limited to developed economies. In addition, studies which specifically employed GMM (see Zakarias, 2016) on 14 eastern African. It is on this background that the study of African countries is pertinent and the use of generalized method of moment cannot be underscored. Despite several policy reforms to improve growth and per capital growth through deepening structural reforms to diversify Africa's productive base and revive growth, chances of Africa to sustain growth and development is slim especially in the current macroeconomic crisis and structural economic rigidities that have overwhelmed global economy. To fill the gaps in the existing literature and estimate the factors that constrain FDI inflow into Africa, it is important that this study investigates the relationship between export, FDI and GDP per capital in African countries. This paper is structured into five sections including this introduction, section two explores the literature review, section three of the study looks at methodology, section four explores the data presentation and analysis and section five considers the summary, conclusion and policy recommendations.

## **2. Literature Review**

There are growing bodies of literature on the index influencing fast growth of GDP per capital in Africa with mixed findings. For instance, Asfaw (2014) used 47 Sub-Saharan Africa countries for the period 2000 to 2008 to investigate empirically the effect of trade policy on GDP per capital applying the generalized least square (GLS) technique, the result of the study depicts a negative effect relationship between import weighted tariff and GDP per capital.

Agrawal and Khan (2011) in their study employed the ordinary least square regression technique to compare the impact of FDI on India and China for the sample period 1993 to 2009. The result of the study indicates that 1% increase in FDI increases GDP at 0.07% in China, so also, a 0.02% increase in GDP of India is as a result of 1% increases in FDI. Thus, china has more positive outcome compared to India. Zakarias (2016) examined the impact of FDI on GDP per capital using data on 14 eastern African countries for the period 1980 to 2013 and applying the GMM technique of estimation. The result of the study indicates a positive and significant relationship between FDI and GDP per capital in eastern African countries. Labour force has a positive and significant effect on GDP per capital. Amoateng and Amoako-Adu (2014) in their study examined the causality effect between external debt service, export and economic growth in African countries for 35 African countries for the period 1971 to 1990. The authors employed the Granger's (1969)





causality and the result of the study shows that a bi directional causality relationship exists between export and GDP.

Ahmad, Alam and Butt (2003) examined Export-led-growth hypothesis using the Granger's (1969) to test the relationship between trade, FDI and domestic output time series data for Pakistan. The authors also employed the Augmented Dickey Fuller (ADF) and vector autoregressive (VAR) system. Result of the study shows that export-led hypothesis holds a big significance but there is also the existence of FDI growth nexus. This implies that there is a significant spillover effect from FDI to domestic output. Foster (2006) used data from 43 African countries spanning 1960 to 99 to empirically investigate the relationship between export and GDP per capital using the threshold techniques of Hansen (1996, 1999 and 2000). The result of the study depicts a positive relationship between GDP per capital and export. For the threshold based on initial GDP per capita, the results suggest that it is for the countries with the lowest levels of initial GDP per capita that a positive and significant relationship between exports and growth exists, with a marginally significant negative relationship between exports and growth found for the richest countries. For the level of exports, again it is for the countries in the low regime that a significant positive relationship between exports and growth exists, with a positive but insignificant coefficient found in the high regime. Hussain and Haque (2016), in their study, estimated the relationship between foreign direct investments, trade, and growth rate of per capita GDP for Bangladesh for the period 1973 to 2014 applying the Johansen procedure and the associated Error Correction Model (ECM). Result of the study shows that trade and foreign investment variables have a significant impact on the growth rate of GDP per capita

### **3. Methodology**

This study employed the panel data set sourced from WDI for the period 2005 to 2019. A panel of 40 African countries is obtained as sample countries for observation and the rationale for using the secondary data source is due to availability of data in form of non-probability sampling technique. Sampled countries include Angola, Algeria Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Cote d'Ivoire, Congo Dem Republic, Djibouti, Egypt, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Morocco, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Togo, Tunisia, Uganda, and Zambia.

GDP per capital is measured as gross domestic product divided by midyear population WDI (2019). Import tariff rate simple mean applied tariff is the unweighted average of effectively applied rates for all products subject to tariffs calculated for all traded goods WDI (2019). Labour force: This comprises people aged 15 and older who supply labour for the production of goods and services during a specified period. It includes people who are



currently employed and people who are unemployed but seeking work as well as first-time job-seekers WDI (2019)

Taxes: Total tax rate measures the amount of taxes and mandatory contributions payable by businesses after accounting for allowable deductions and exemptions as a share of commercial profits. Taxes withheld (such as personal income tax) or collected and remitted to tax authorities (such as value added taxes, sales taxes or goods and service taxes) are excluded WDI (2019).

Inflation: Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly WDI (2019).

Export: The variable export is measured as exports of goods and services as a percentage of gross domestic products (GDP) WDI (2019). FDI: it is defined as inflows (% of GDP). It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments WDI (2019)

Basically, the regressors in the GMM are categorized into three namely: predetermined, endogenous and exogenous variables. In the classification, the regressors representing predetermined variable would be those that are correlated with past errors but not with the current and future errors, the endogenous variables are regressors which are correlated with current and past errors while the exogenous regressors are defined as those not correlated with temporal periods. The outcome expected of endogenous regressors is to solve for endogeneity which is seemingly practicable in GMM estimation; thus the lag value of the past regressors can be used as additional instrument in the model. The dynamic panel estimations are differenced GMM and system GMM although the differenced GMM has its drawback. The system GMM is robust to heteroscedasticity and autocorrelation (see Roodman, 2009). This will require that in each simulation applying several prefix and options, the instrument lags must be less than the number of groups, thus the AR(1) may be significant. However, the AR (2) must not be significant; otherwise, it shows that the lag value of the dependent variable cannot be used as instrument in the equation. Hansen statistics must not be significant as well. Essentially, the GMM estimation is as short run estimation, thus the long run estimation can be generated using the significant coefficients of GMM and the causality relationship can be inferred from the long run estimation.

#### *Model specification*

$$\text{GDP PERC} = \beta_0 + \beta_1 \text{infla} + \beta_2 \text{taxes} + \beta_3 \text{average import weighted tariff} + \beta_4 \text{FDI} + \beta_5 \text{export} + \beta_6 \text{labour force} + \mu$$

Thus, this study follows the Beck, Levine and Loayza (2000) and Calderón and Servén (2004) which allows the use of lag value of the dependent variable to be used to solve for endogeneity and unobserved country specific effect commonly associated with panel data estimation. This study employs the GMM estimation.



To specify the dynamic model, we have

$$\ln Y_{it} = \phi \ln Y_{it-1} + YZ'_{it} + \beta X'_{it} + d_t + \varepsilon_{it} \dots \dots \dots 1$$

Z' Implies control variables, X' implies explanatory variables  $\ln Y_{it-1}$  is lagged value of dependent variable.

The differenced GMM is expressed as:

$$\ln Y_{it} = \phi \ln Y_{it-1} + YZ'_{it} + \beta X'_{it} + d_t + \varepsilon_{it} \dots \dots \dots 2$$

$$i = 1, 2, \dots, N; t = 1, 2, \dots, T.$$

The implication of the above differenced GMM model is the if the dependent variable is close to random walk for instance ( $\Phi > 1$ ) that is the lagged dependent variable is moving toward one (1). The Difference GMM estimation will not yield a robust estimate rather a biased and inefficient estimate and consequently could be acute when the time panel is short Blundell and Bond (1998).

The significant coefficients in the GMM estimations are important tool for determining long run equilibrium. The long-run coefficient will be generated through short-run coefficients which are significant coefficient of ECM. Thus, the long-run effects for the  $K^{\text{th}}$  parameter is computed as

$$\beta_k + (1 - \Phi) \dots \dots \dots 3$$

**4. Results**

This section of the study shows an economic interpretation of the coefficients in the models. In addition to that, the statistical fit and appropriateness of the estimated models are extensively discussed in this section of the study.

In Table 1 of differenced GMM, the result of the study shows that the lag value of GDP per capital is positive and statistically significant at 1% level across all models. By interpretation, the lag value has implication on the current period and the lag value of the dependent variable is instrument to be included in the model as repressors.

Table 1: Differenced GMM

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
gdpperc LI	0.6954*** (0.02)	0.6649*** (0.04)	0.6605*** (0.04)	0.6954*** (0.02)	0.6605*** (0.07)
Taxes	-2.0974** (1.94)		-2.1629* (5.57)	-2.0974** (1.94)	-2.1629* (3.35)
Fdii	-45.404** (28.4)	-210.86*** (75.75)	-224.25*** (66.05)	-45.40** (28.48)	-224.25*** (82.55)
Imweight	-3.7647* (20.43)	0.3414* (12.41)	-0.4267* (12.23)	-3.764* (20.43)	-0.426* (40.54)
Sslabo	0.0038**	0.0398*	0.0337*	0.0383**	0.00003*



Variables	Model 1	Model 2	Model 3	Model 4	Model 5
	(0.0522)	(.89)	(0.090)	(0.052)	(0.081)
Exporti	36.980** (22.29)	65.263*** (29.17)	66.931*** (27.45)	36.980* (22.29)	66.931*** (16.72)
No. of Obs	520	520	520	520	520
Time	YES	YES	YES	YES	YES
Dummies					
Number of Instruments	96	18	18	96	18
No of groups	40	40	40	40	40
F Statistic	300.52	66.39	64.28	300.52	124.53
GMM	1	1	1	1	1
Instrument					
Lag					
AR(1)	0.166	0.048	0.029	0.166	0.019
AR(2)	0.209	0.958	0.981	0.209	0.969
Hansen test	1.000	0.583	0.508	1.000	0.464

Source: Authors computation using STATA

Notes: \*\*\* \*\* denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis)

The coefficient FDI has a negative and statistical significance on GDP per capital in model 2, 3, and 5. However, the coefficient export also posits a positive and statistical significant impact on GDP per capital in model 2, 3 and 5. Notably, import weighted tariff has a negative effect on GDP per capital (-.4267).

Considering the choice of lag length at lag 1, the specification test of AR(2) shows that our model does not suffer from second order serial correlation because it is non-significant using the collapse option and other options. Similarly, the Hansen test statistics is significant which is expected; thus, it indicates that instrument used in the model are not over-identified. It is worthy to note that some attributes are associated with this result particularly the insignificance of some coefficients. For instance, taxes indicate negative but insignificant as a result of several tax regimes and reforms in the tax system in SSA. The negative insignificant unweighted tariff rates for all products are also as a result of underdeveloped nature of tariff system in SSA; Foreign Direct Investment (FDI) strong drivers and catalyst to increasing GDP per capital in SSA countries.



Table 2: System GMM Lag 1

Variable	1	2	3	4	5	6	7	8	9
Constant	286*** 14425.3	1472.561* 28480.98	4817.081* 24263.7	1154.305* 37762.7	-3301.042* 36451.37		7534.766* 39014.83	10484.96 38794.09	-718.7107 34150.16
Gdpperc LI	0.9285*** (0.03)	0.6377*** (0.04)	0.659*** (0.04)	0.696*** (0.06)	0.681*** (0.06)	0.934*** (0.03)	0.690*** (0.06)	0.692*** (0.06)	0.689*** (0.06)
Inflai									-4.19** (5.77)
Taxes	-0.513** .5226263	-.9701469** 1.290917	-.8851981** 1.099978	-1.61098** 2.18366	-1.663881* 1.917427	-.356473* 2 .5901817	-1.983705** 1.512619	-1.751931** 1.623172	-1.512686* 2.249056
Fdii	-50.11967** 30.80494	-190.4501*** 60.76333	-158.5213*** 44.52375	-198.5289*** 67.23648	-208.8482*** 84.98492	-32.44439*** 17.49349	-193.9218*** 69.38062	-193.4482*** 66.44694	-205.1815*** 64.78722
Imweight	-.0911791* 10.66439	-7.95971* 28.22485	-2.018327* 21.39764	-6.522434* 32.23996	-3.327106* 37.57674	-.7264011* 8.234185	5.055425* 35.06867	1.618968* 28.97903	-6.669544* 33.70701
Sslabo	-9.70e-07* 3.05e-06	-5.17e-06* 7.65e-06	-4.52e-06* 7.98e-06	-.0000111** .0000125	-.0000108** .0000128	-3.00e-07* 1.84e-06	-.0000118** .0000121	-.0000138** .0000126	-.0000117** .000013
Exporti	15.43785** 9.149323	50.70108*** 17.10455	42.42622*** 16.41106	45.24292*** 17.31228	50.8834*** 18.4148	12.715*** 7.497406	47.92269*** 18.31655	42.99689*** 18.96202	45.39031*** 17.14102
No. of Obs	560	560	560	560	560	560	560	560	560
Time Dummies	Yes	Yes	yes	yes	Yes	yes	yes	yes	Yes
Number of Instruments	111	21	21	36	36	229	36	36	36
No of groups	40	40	40	40	40	40	40	40	40
F Statistic	6098.10	189.26	207.56	88.35	120.90	3282.19	184.90	857.40	80.41
GMM Instrument Lag	1	1	1	1	1	1	1	1	1
AR(1)	0.182	0.019	0.022	0.038	0.044	0.192	0.023	0.022	0.038
AR(2)	0.204	0.811	0.607	0.760	0.852	0.195	0.748	0.700	0.793
Hansen test	1.000	0.486	0.410	0.463	0.479	0.839	0.632	0.320	0.419

Source: Authors computation using STATA

Notes: \*\*\* \*\* \* denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis



**Table 2. System GMM Lag 1**

Variabl	1	2	3	4	5	6	7	8	9
Gdpperc LI	0.92*** (0.03)	0.63*** (0.04)	0.65*** (0.04)	0.696*** (0.06)	0.681*** (0.06)	0.93*** (0.03)	0.69*** (0.06)	0.69*** (0.06)	0.68*** (0.06)
Inflai									-4.19** (5.77)
Taxes	-0.51** (0.52)	-0.97** (1.29)	-0.88** (1.09)	-1.61** (2.18)	-1.66* (1.91)	-.35* (2.59)	-1.98** (1.51)	-1.75** (1.62)	-1.51* (2.24)
Fdii	-50.1** (30.80)	-190.45*** (60.76)	-158.52*** (44.52)	-198.52*** (67.23)	-208.84*** (84.98)	-32.4*** (17.49)	-193.92*** (69.38)	-193.44*** (66.44)	-205.18*** (64.78)
imweight	-0.091* (10.66)	-7.95* (28.22)	-2.01* (21.39)	-6.52* (32.23)	-3.32* (37.57)	-0.72* (8.23)	5.05* (35.06)	1.61* (28.97)	-6.66* (33.70)
Sslabo	-9.70* (3.05)	-5.17* (7.65)	-4.52* (7.98)	-0.00** (0.00)	-0.00** (0.00)	-3.00* (1.84)	-0.00** (0.00)	-0.00** (0.00)	-0.00** (0.00)
Exporti	15.43** (9.14)	50.70*** (17.10)	42.42*** (16.41)	45.24*** (17.31)	50.88*** (18.41)	12.71*** (7.49)	47.92*** (18.31)	42.99*** (18.96)	45.39*** (17.14)
No. of Obs	560	560	560	560	560	560	560	560	560
Time Dummies	Yes	yes	yes	Yes	yes	yes	Yes	yes	Yes
Number of Instruments	111	21	21	36	36	229	36	36	36
No of groups	40	40	40	40	40	40	40	40	40
F Statistic	6098.10	189.26	207.56	88.35	120.90	3282.19	184.90	857.40	80.41
GMM Instrument Lag	1	1	1	1	1	1	1	1	1
AR(1)	0.18	0.01	0.02	0.03	0.04	0.19	0.02	0.02	0.03
AR(2)	0.20	0.81	0.60	0.76	0.85	0.19	0.74	0.70	0.79
Hansen test	1.00	0.48	0.41	0.46	0.47	0.83	0.63	0.32	0.41

Source: Authors computation using STATA

Notes: \*\*\* \*\* \* denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis)

In Table 2, the result of System GMM indicates that previous GDP per capital has a positive and statistical significant impact on current GDP per capital. The coefficient taxes have a negative effect on GDP per capital at 5% (-.8851). FDI has a negative effect on GDP per capital and statistical significant at 1% level across all model. The parameter unweighted import tariff and supply of labour have a negative effect on GDP per capital although not significant. However, the coefficient export posits a positive and statistical significant relationship with GDP per capital in SSA during the period of study.

**Table 3: Robust Estimation System GMM Lag 2**

variables	1	2	3	4	5	6	7	8
Gdpperc	.96***	.80***	.93***	.75***	.79***	.77***	.77***	.77***
LI	.03	.10	.04	.12	.11	.11	.11	.11
L2	-.04*** (0.02)	-.11*** (0.03)	-.0263** (0.02)	-.2317*** (0.10)	-.2093*** (0.10)	-.18*** (0.10)	.1881*** (0.10)	-.18*** (0.09)
Taxes	-.67** (0.48)	-1.70** (1.57)	-.7267** (0.61)	-.8704* (2.11)	-2.467** (3.18)	-2.32** (2.81)	-3.074** (2.42)	-3.02** (2.36)
Fdii	-52.08** (32.47)	-202.2*** (0.19)	-63.928** (39.4)	315.53*** (146.0)	301.62*** (159.9)	286.66*** (157.6)	278.35*** (154.71)	272.82*** (141.9)
imweight	-1.80* (12.0)	-.34* (31.05)	-2.436* (13.3)	-3.561* (34.2)	-2.905* (39.8)	-3.22* (47.3)	3.72* (47.9)	3.72* (47.36)
Sslabo	-1.34* (3.05)	-.0135** (.01)	-2.39* (3.65)	-4.63* (.11)	-.0159** (.02)	-.00* (.0199)	-.01** (.0198)	-.01** (.018)
exporti	16.01822** 9.74	40.11*** 23.5	17.91*** 10.5	58.75*** 27.09	65.80*** 32.9	69.55*** 32.6	64.25*** 30.2	63.25*** 28.7
No. of Obs	520	520	520	520	520	520	520	520



variables	1	2	3	4	5	6	7	8
Time	Yes	Yes	yes	Yes	yes	yes	Yes	yes
Dummies								
Number of Instruments	110	21	97	20	35	35	35	35
No of groups	40	40	40	40	40	40	40	40
F Statistic	5482.31	97.98	3689.00	21.57	25.76	35.78	62.91	65.52
GMM Instrument	2	2	2	2	2	2	2	2
Lag								
AR(1)	0.18	0.02	0.18	0.07	0.099	0.09	0.08	0.06
AR(2)	0.20	0.99	0.21	0.68	0.703	0.70	0.65	0.66
Hansen test	1.00	0.60	1.00	0.73	0.286	0.32	0.58	0.45

Source: Authors computation using STATA

Notes: \*\*\* \*\* \* denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis)

In Table 3, we also employed the robust estimation to ensure reliability and consistency of estimate using the lag 2 prefix and the result shows that the lag value of GDP per capital at the second lag is consistent to the system GMM at lag 1 where all estimated models show significant.

Table 4: Long run estimates

Variables	Coef and Std. Err
Exporti	229.54*** (131.00)
FDI	-791.62*** (339.60)

Source: Authors computation using STATA

Notes: \*\*\* \*\* \* denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis)

In Table 4, we generate the long run coefficients from the significant coefficients as indicated in table 3. The GMM estimation is a short run analysis. Thus the long run estimation could be generated from the significant short run coefficients. The result of long run estimates shows that export has a positive and statistical significant relationship with GDP per capital at 1%. FDI also posit a negative effect relationship with GDP per capital. This also shows that there is a long run causality relationship among export FDI and GDP per capital.

### 5. Conclusion and Recommendation

Given the sparse body of literature in the factors affecting GDP per capital in Africa with mixed evidences, this study empirically investigated the effect of FDI and Export on GDP per capital in 40 African countries for the period 2005 to 2019. The justification for time period is the shocks and structural economic rigidities that overwhelmed the growth GDP per capital across African countries. This study employed the System GMM technique to solve for endogeneity and country specific issues related to panel data estimation. From the findings, result revealed that the lag value of GDP per capital at first lag and second lag are additional instrument to be used in the model and have a positive effect on the current GDP





per capital. FDI posits a negative and statistical significance effect on GDP per capital in the short run. Export has a positive and statistical significant effect on GDP per capital in the short run. In the long run, FDI has a long run relationship with GDP per capital and export has a positive and significant relationship with GDP per capital. There is also a long run causality effect among export, FDI and GDP per capital in African countries. This implies that FDI and Export granger causes GDP per capital in the long run.

### References

- Agrawal G. & Khan, M. A. (2011). Impact of FDI on GDP: A Comparative Study of China and India International Journal of Business and Management 6(10)
- Ahmad, M. H; Alam, S. & Butt, M. S. (2003) Foreign Direct Investment, Exports, and Domestic Output in Pakistan. *The Pakistan Development Review* 42(4): 715–723
- Asfaw H. R. (2014). Trade Policy and Economic Growth in Sub-Saharan Africa: A Panel Data Approach American Journal of Trade and Policy 1 Issue 3
- Beck, T., Levine, R. & Loayza, N. (2000). “Finance and the Sources of Growth.” *Journal of Financial Economics* 58: 261 – 310.
- Blundell, R. & Bond, S. R. (1998). “Initial Conditions and Moment Restrictions in Dynamic Panel Data Models.” *Journal of Econometrics* 87: 115–144.
- Foster N. (2006). Exports, Growth and Threshold Effects in Africa Journal of Development Studies,. 42(6): 1056–1074.
- Kofi Amoateng K & Amoako-Adu, B. (2014). Economic growth, export and external debt causality: the case of African countries Applied Economics, 1996, 28, 2 1-27
- Levine, R. & Renelt, D. (1992). A sensitivity analysis of cross country growth regressions, American Economic Review, 82, 946–63.
- Hussain, M. E. & Haque, M. (2016). Foreign Direct Investment, Trade, and Economic Growth: An Empirical Analysis of Bangladesh Economies, 4(7) doi:10.3390/economies4020007
- Roodman (2009) How to do xtabond2: An introduction to difference and system GMM in Stata The Stata Journal 9(1): 86–136
- United Nations (2020). World Economic Situation and Prospects 2020
- Zakarias S. M (2016). The Foreign Direct Investment FDI on Economic Growth in Eastern African: Evidence from Panel Data Analysis Applied Economics and Finance. 3(1)



## THE EFFECT OF INTELLECTUAL CAPITAL DISCLOSURE ON MARKET VALUE OF LISTED COMPANIES IN NIGERIA

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### Abstract

*This research examines the intellectual capital (IC) disclosure's effect on the market value of the companies listed on Nigerian Stock Exchange's main board. The hypothesis for the study is formulated using signaling theory. Using content analysis of sampled 30 most capitalised firms, the study generates IC disclosure scores from annual reports. IC is surrogated with customer capital, protected capital, human capital, innovation capital and process capital, while corporate market value is proxied with market capitalisation. This study longitudinally examined the connection between market capitalisation and IC disclosure quality using data between 2016 and 2019 financial years based on ordinary least square method. The result shows that the listed companies' corporate market value and the overall IC disclosure are significantly and positively correlated. The study recommends that managers should disclose adequate information on IC because of its influence on investors' decisions and activities at capital market.*

**Keywords:** Voluntary disclosure, Intellectual capital, corporate market value, Nigeria.

### 1. Introduction

Efficiency utilisation and subsequent disclosure of intellectual capital (IC) information in companies' annual reports have become a common research area globally among academia and practitioners in the field of accounting (e.g. Alfraih, 2017; Anifowose, Abdul Rashid, & Annuar, 2017; Widarjo & Bandi, 2018; Mangena, Pike, & Li, 2010; Mouritsen, Bukh, & Marr, 2004; Orens, Aerts, & Lybaert, 2009). The importance of IC, which fails to meet the recognition yardsticks of international accounting frameworks and standards (M'Pherson & Pike, 2001), cannot be over emphasised because its non-inclusion in main stream financial statements as either asset or capital has led to huge differences between book value and corporate market (e.g. Parshakov & Shakina, 2020, Stewart, 1991; Public, 2000).

Further, scholars such as Bounfour (2003), Bontis (1996), Edvinsson and Malone (1997), Anifowose et al. (2017) have identified relational capital, structural capital and human capital as three components of IC. Relational capital refers to the value or worth of an organisation's social relationships, both internal and external; it is an intangible asset. Structural capital covers the methods, processes, structure of intellectual property, brands and other important things which the company possesses, but do not reflect in the financial statement (Bounfour, 2003; Bontis, 1996; Stewart, 1997). Included in human capital,



according to Edvinsson and Malone (1997); Roos, Roos, Dragonetti and Edvinsson (1997) and Stewart (1997), are the intellectual abilities, skills, experience and competence of each employee.

Meanwhile, although one can easily understand the constituents of relational and human capitals, the elements of structural capital are ambiguous. After critically examining the extant literature on structural capital, and Nigerian economic environment, this paper suggests that structural capital should be divided into three components: process capital (Hsu & Fang, 2009; Stewart, 1997), protected capital or intellectual capital (e.g., Brooking, 1996; Edvinsson & Malone, 1997; Lynn, 1998) and innovation capital (Bontis, Dragonetti, Jacobsen, & Roos, 1999; Joia, 2000). This will be a ground breaking scientific framework for research in IC accounting. Innovation capital is believed to be a direct effect of the culture of a company and its capacity to bring out from the existing knowledge new one (Chang, 2007; Joia, 2000). Process capital covers operation processes, cooperative culture, specific methods, workflow, information technology systems, etc. in a company (Hsu & Fang, 2009). Intellectual property is legal way to protect the infrastructural assets of a firm. This is why intellectual assets are referred to as protected capital if they are legally protected.

In addition, stakeholders are worried about corporate value because it affects both present business decisions and the future assessment in investment and financing decisions (Keeney & Keeney, 2009). Market capitalisation has estimated corporate market value (e.g. Abdolmohammadi, 2005; Anam, Fatima, & Majdi, 2011) as its reliability can be assumed to be free from manipulation of those charged of corporate management. Meanwhile, Abhayawansa and Abeysekera (2008) posit that disclosing intellectual capital can improve market value. It will enhance information symmetry between investors and managers and guarantee capital market efficiency and as well facilitate better corporate governance (Abeysekera, 2008) as it may guide users towards the company's future direction, as signalling theory opines (Morris, 1987). The theory states that the information content of annual reports signals the direction to the users concerning the firm's future and guides their decisions. This can, therefore, explain the association between corporate value and intellectual capital reporting as the management of an entity with good value will endeavour to indicate this information in the firm's annual reports through disclosure of more information on IC and the market could capture the information (Anam et al., 2011).

To sum it up, the current study will extend the literature to sub-Saharan Africa, particularly Nigeria; it will investigate the effect of IC disclosure and its components: process capital disclosure, human capital disclosure, innovation capital disclosure, protected capital disclosure and process capital disclosure on the corporate market capitalisation of top 30 most capitalised firms in the country for a three-year period of 2016 to 2019. This is the pioneer study to consider such a relationship as previous studies have considered the trend of IC disclosure (Haji & Mubaraq, 2012; Mahamad & Salman, 2011) and the impact of VAIC on traditional accounting measures (Salman, Mansor, Babatunde, & Tayib, 2012; Uadiale & Uwuigbe, 2011) in the context of Nigeria economy.



However, this study reveals a significant positive correlation between market capitalisation and IC disclosure among the sampled companies. The structure of the study has section one which presents the introduction, while literature review and theoretical framework come in section two, which ends with hypotheses development. The methodology for the study is discussed in section three; data analysis presented in section four and the conclusion in section five.

## **2. Literature review**

The value relevance of IC information among market participants has been considered using various theories. One of the most celebrated theories of voluntary disclosure is signalling theory which was proposed by Spence Michael in 1973. The theory suggests that the problem of information asymmetry could be minimised if the party possessing most information could give relevant stakeholders signals (An, Davey, & Eggleton, 2011). It proposes that corporate entities with better performance or high-quality firms would like to distinguish themselves from low-performing or low-quality companies by sending signals to the market through voluntary disclosure and, consequently, minimise the information inequality (Watson, Shrivess, & Marston, 2002).

Signalling theory proposes that entities with better quality should signal their potential to the market; in this way investors re-estimate the company's value and then make decisions, which will favour the company better (Whiting & Miller, 2008). In the same vein, it is anticipated that company will secure more investment through the investors' favour and the costs of raising capital will, thereby, reduce. Other studies, such as Oliveira, Rodrigues and Craig (2006) have also argued that corporate firms be better motivated and encouraged to disclose IC related information if fitness is signalled to the market. However, the reporting format and emphasis could vary depending on companies.

Research on the influence of disclosure and corporate value has received a considerable attention among academia and some notable practitioners in recent time. The premise of most of these studies is signalling theory as it is expected that information contents of IC will change the opinion of the market participants regarding the present as well as the future performance of the business organisations (e.g. Gamerschlag, 2013; Ousama, Fatima, & Hafiz, 2011; Sang & Taylor, 2014; Vafaei, Taylor, & Ahmed, 2011; Rooney & Dumay, 2016; Zhicheng, Zhuoer, Shing, & Wah, 2016). Also, Sang and Taylor (2014) examine IC value relevance and its components in the share price of 160 companies listed in Australian capital market within a period of five years. Data collected from sampled firm was analysed using fixed-effects (FEs) Panel regression analysis. The study finds that IC (structural capital and human) and share price of the sampled firms are significantly related.

Also, Gamerschlag (2013) investigates the impact of human capital disclosure on the corporate value of 130 largest quoted German firms for the time period of 2005 to 2009 using content analysis. The study utilises disclosure index to estimate human capital disclosure (HCD) and employs share price and equity return as proxies for market value.



Also, it introduces year and industry dummies as control variables. The study surrogates HCD by four items which include: HCRTOT refers to the amount of human capital disclosed, HCRQC refers to the quantity of “qualification/competence” information disclosed, HCRMC refers to the quantity of “motivation/commitment” information disclosed, while HCRPS refers to the quantity of “personnel” issues (the amount of keywords available in the report analysed) disclosure. Closing price of the share and holding period return were estimated as a proxy of the entities’ market value.

Besides, Ousama et al. (2011) examine the value relevant of IC information disclosure of Malaysian listed companies. The study utilises a survey instrument to generate data from both the preparers and users of financial statements. It employs human capital, internal capital and external capital as surrogates for IC and the questionnaire was administered among chief finance officers (CFOs) and accountants of selected companies, loan officers of banks and broker institutions. ANOVA, t-test and descriptive statistics are used for data analysis. The study reveals that information content of IC is perceived to be value-relevant to both preparers and users though at different degrees. Vafaei et al. (2011) examine the extent of value relevance of IC disclosure among firms in the capital markets. It is a cross-national and comparative study in which 220 firms are sampled from 4 countries: Singapore (50), Hong Kong (49), Australia (63) and Britain (58). Word count of the contents of the firms’ annual reports for in the content of firms’ annual reports for each of four components (HC, SC, RC and general terms) and a disclosure index are used to measure disclosure of IC. The finding suggests industry-specific factors and country-specific factor have impact on a positive association between share price and IC disclosure. It is also found that IC disclosure gives market participants information on value relevance in non-traditional industrial sector and in Britain and Australia alone.

In the same vein, Swartz, Swartz and Firer (2006) examine JSE Securities Exchange (SA) using Ohlson’s 1995 valuation model. The study finds that IC reporting and market capitalisation are significantly related. Also, Abdolmohammadi (2005) studied a sample of Fortune 500 in the USA and utilised aggregate value for ICD and documented that the information content of annual reports concerning IC affect corporate market capitalisation significantly. Similarly, Vafaei et al. (2011) measure ICD value relevance of the sample firms in Australia, Britain, Singapore and Hong Kong., It can only document that market value is significantly and positively influenced in two of the four countries.

The above shows that IC is not peculiar to some countries and it could be studied across firms. Also, the findings might be influenced by the economic jurisdiction of the study. Thus, it would be interesting to explore the phenomenon in Nigerian economy. Relying on theoretical underpinning and established association between market capitalisation and voluntary disclosure, this study proposes the following conceptual framework. The dependent variable is measured as market capitalisation, while independent variable is IC disclosure made of, relational capital disclosure, innovation capital disclosure, structural capital disclosure, human capital disclosure and protective capital disclosure. Also,



included in the framework are control variables which are considered relevant in explaining the dependent variables. These are size of the firms and industry affiliation.

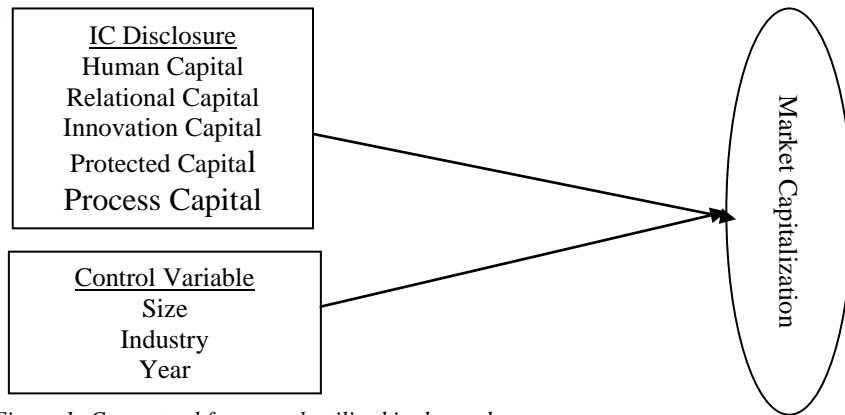


Figure 1: Conceptual framework utilised in the study

Based on the underpinning theory and the existing empirical studies, this section presents the hypothesis of this study. The research question is does IC disclosure significantly affect market capitalisation of a firm based on signaling theory? Several scholars have investigated the relationship between market capitalisation and IC disclosure. Abdolmohammadi (2005) and Anam et al (2011), for instance, discover that market capitalisation is significantly and positively influenced by IC disclosure. Similarly, Taliyang et al. (2014) examine the impact of IC disclosure on market capitalisation in 185 Malaysian listed companies. They too find that Malaysian listed companies' market capitalisation is significantly and positively influenced by IC disclosure. Based on the above findings, the present study tests the hypothesis below:

**H<sub>1</sub>**:Intellectual capital disclosure has significant effect on the market value of the companies listed in Nigeria.

### 3. Methodology

Due to their market capitalisation on the floor of NSE, 30 Nigerian listed firms were sampled for this study. The firms are those, which consistently fell within the 30 most capitalised firms over the period 2016 – 2019. Though their positions changed, they still meet the criteria. The study utilised data mainly from secondary sources because the core of the data needed for analysis was adequately and authoritatively extracted from the annual reports of the sample firms and other relevant publications issued by the Nigerian Stock Exchange (NSE).



*Measurement of IC disclosure*

Based on the review of previous studies, this study employs content analysis to form a checklist after familiarisation with IC disclosure pattern. The 49 IC items are selected, comprising 6 innovation capital items, 9 process capital, 16 human capital 13 relational capital items and 5 protected capital. The items in each of the categories are presented in Table 1 below.

Table 1: Checklist list of IC Disclosure Items

A	Human Capital	C	Customer/Relational Capital
1	Number of Employees	1	List of Customers
2	Employee satisfaction	2	Customer satisfaction
3	Employee retention	3	Customers loyalty
4	Compensation to employees	4	Customer Appreciation
5	Engagements with employees	5	Customer retention
6	Recruitment from the local communities	6	Customer service/support
7	Disability recruitment policy (number)	7	Customer feedback system
8	Employee Know-how	8	Distribution channels
9	Education Background	9	Customer Market Share
10	Employee succession planning program	10	Company awards
11	Work-related knowledge	11	Company image/ reputation
12	Knowledge sharing	12	Customer training & education
13	Employee health and safety	13	Diffusion & networking
14	Employee Expertise	D	Innovation Capital
15	Training and development	1	Innovation
16	Cultural Diversity	2	Research and Development
B	Process Capital	3	Brands
1	Corporate Culture	4	Knowledge-based
2	Information Systems (Technology)	5	Research collaboration
3	Financial Relations	6	Goodwill
4	Business Collaboration	E	Protected Capital
5	Favourable contracts	1	Patent
6	Organisation flexibility	2	Copyright
7	Organisation structure	3	Trademarks
8	Organisation learning	4	Licenses
9	Quality management	5	Commercial rights

Source: Checklist developed by the Authors 2019

A four Likert scale (0-3) was used to score IC disclosure quality (e.g., Abeysekera, 2008; Guthrie et al., 2006). Following Haji and Ghazali (2012) and Anifowose et al. (2017), an item disclosed in Nigerian Naira was scored a value of 3; an item disclosed numerically





was scored 2. An item disclosed in form of narrative was scored 1, while an item, which did not feature the annual report, was allotted 0. Therefore, the total scores for overall disclosure and each of components (TXS) were computed as the proportion of actual score (AXS) to maximum possible score (MXS) (i.e.  $3 \times 49 = 147$ ). The TXS of a company is obtained by:

$$TXS = AXS/MXS \dots\dots\dots 1$$

There have been worries in the recent times regarding reliability and validity of scores in IC disclosure (Dumay & Cai, 2014) because the approach has inherent problems. To avoid such problems, the scoring approach used in this study involves a two-stage checklist. To be familiar with annual reports, the study did a pilot scoring of the top ten listed firms. Then, the annual reports of the sample firms were scored independently by the author their scores were then compared and they jointly rescored areas where they differed to correct their differences.

*Data Analysis Methods*

In order to identify anomalies in the series, the analysis began by describing the data. Pearson Correlation Matrix was done to detect whether there was multicollinearity among independent variables (e.g., Field, 2013; Hinton et al. 2004). Due to the nature of data and finding from these preliminary analyses, the study estimated the parameters with ordinary least square method (e.g., Field, 2013; Hinton et al. 2004). The stochastic models were used for making estimations as presented below:

$$MKcap_{it} = \gamma_0 + \gamma_2 \sum_{i=1}^5 TICD_{it} + \gamma_3 Industry_{it} + \gamma_4 Size_{it} + \gamma_5 Year_{it} + \varepsilon_{it} \dots\dots\dots 2$$

$$MKcap_{it} = \delta_0 + \delta_2 HC_{it} + \delta_3 EC_{it} + \delta_4 INC_{it} + \delta_5 PC_{it} + \delta_6 PRC_{it} + \delta_7 Industry_{it} + \delta_8 Size_{it} + \delta_9 Year_{it} + \varepsilon_{it} \dots\dots\dots 3$$

The total impact of IC disclosure and its individual components on market capitalisation are estimated using equation 2 and equation 3 respectively. Presented in Table 2 are definitions, measurements and sources of acronyms used in the models.

Table 2: Details of Variables

Symbol	Definition	Measurement	Sources
Log_MK	Natural log of market capitalization	Product of year end stock price and num: share ranking for dividend	NSE Website
HC	Weighted human capital disclosure	Ratio of actual to maximum possible score of HC	Annual report
EC	Weighted Relational capital disclosure	Ratio of actual to maximum possible score of RC	Annual report
INC	Weighted Innovation capital disclosure	Ratio of actual to maximum possible score of INC	Annual report
PC	Weighted Process capital disclosure	Ratio of actual to maximum possible score of PC	Annual report
PRC	Weighted Protected capital disclosure	Ratio of actual to maximum possible score of PRC	Annual report



Symbol	Definition	Measurement	Sources
TICD	Weighted Overall Intellectual capital disclosure	Ratio of actual score to maximum possible score Overall IC	Annual report NSE
Industry	Categories firms along financial and non-financial line	1 for financial firm and 0 for non-financial	Website/Annual reports
Size	Size of the sampled firms	Log of total assets	NSE Website/Annual reports
Year	Year Dummy	Dummy variable for year of study	

Source: extracted by the authors

#### 4. Results

##### *Descriptive Statistics*

The analysis begins with data description to establish their suitability for further estimations. The results of descriptive statistics reveal that about 43.6% of the overall disclosure items were disclosed by the firms on the average. Also, human capital was most disclosed among the five components with an average of 46.3% of the expected disclosure. This is closely followed by process capital with a mean of 45.3%, while protected capital has the least disclosure. The results also show that median values of all the variables fall between their means and maximum values. This is an indication of normality as this proves the variable to mesocurtic shapes in their probability distributions. Besides, the variables are moderately normally distributed based on skewness and kurtosis criterion (e.g. Field, 2013; Wooldridge, 2010). It can be drawn from the above that the parameters could be estimated with ordinary least square method.

Table 3: Result of Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Ob
LOG_MK	11.30	11.250	13.104	9.780	0.675	0.455	3.783	90
TICD	0.436	0.422	0.687	0.238	0.098	0.324	2.642	90
SIZE	10.58	10.627	11.740	7.280	0.809	-1.445	6.938	90
HC	0.463	0.458	0.625	0.250	0.091	-0.216	2.486	90
EC	0.443	0.410	0.795	0.051	0.164	0.197	2.577	90
PC	0.453	0.444	0.778	0.148	0.116	0.386	3.417	90
PRC	0.340	0.333	0.600	0.067	0.087	0.323	5.548	90
INC	0.408	0.389	0.889	0.000	0.148	0.827	4.783	90

Source: Extracted by the authors

##### *Summary of Pearson Correlations Coefficient Matrix*

Table 4 presents the results of correlation matrix. The results indicate that perfect multicollinearity was absent among the variables because all that figures are acceptable based on the submissions of Field (2013) and Gujarati and Porter (2009). Except in the case of TICD and its constituents which are not to be regressed together in the same model, the correlation coefficient across the pair is lower than 0.5. This signifies non-awfulness or



non-presence of collinearity problems among the independent variables. To investigate the relationship among both dependent variables and independent variables, a correlation analysis is considered and Table 4 presents the coefficient matrix among the variables. One could deduce that market capitalisation is positively significantly correlated with the intellectual capital components. This could provide a better basis for further analysis using regression method of estimation.

Table 4: Coefficient of Correlation Result

	Log_MK	TICD	HC	EC	PC	InC	PrC	Size
Log_MK	1							
TICD	.436**	1						
HC	.226*	.885**	1					
EC	.454**	.912**	.716**	1				
PC	.351**	.906**	.755**	.767**	1			
InC	.431**	.662**	.413**	.532**	.597**	1		
PrC	.261*	.459**	.383**	.276**	.447**	.288**	1	
Size	.418**	.235*	.151	.230*	.278**	.179	.054	1

\*\**. Correlation is significant at the 0.01 level (2-tailed).*

\**. Correlation is significant at the 0.05 level (2-tailed).*

#### *Regression Result of ICD and Market Capitalisation*

The major aim of the present study is to find out the Intellectual Capital Disclosure (ICD) impact on Nigerian listed firms' corporate market value. The hypothesised correlation was tested with the aggregated model (i.e. equation). The results of the model indicate that Nigerian listed firms' market capitalisation is significantly and positively affected by overall disclosure. The possible implication of this finding is that more disclosure would enhance the market value. This result supports previous studies such as Anam et al. (2011) and Abdolmohammadi (2005). However, from individual components' perspectives, the market value of Nigerian listed firms is significantly positively influenced by innovation capital, external capital and protected capital. The results also reveal unexpectedly that corporate market value measure by market capitalisation is significantly and negatively influenced by process capital and human capital. In addition, firm's size has a significant effect on corporate value supports Anam et al. (2011).

Besides, both the year effect and industry effect have a significantly negative impact on corporate market value during the period under study in the two models. It could be said that industry and year are not necessary in the IC disclosure in the context of Nigeria. The overall variation in market value is explained by IC disclosure to the extent of 71.2% on the aggregate and 83.2% on individual component model, as revealed by the adjusted R-square, while F-statistic reveals fitness of the model (F-statistic, 44.54, P<0.01 for model I and F-statistics, 49.58, P<0.01 for model II) with value of 44. The detail summaries of the estimation are presented in Table 5. It seems the autocorrelation is not a serious problem with values of DW from both models which is approaching 1 as suggested by earlier studies (e.g. Field, 2013; Wooldridge, 2010).



Table 5: Intellectual capital disclosure and market capitalisation

Variable	Model 1				Model 2			
	Coefficient	Std. Error	t-Stat	Prob.	Coefficient	Std. Error	t-Stat	Prob.
TICD	1.935	0.245	7.915	0.000				
HC					-0.854	0.209	-4.094	0.000
EC					1.825	0.300	6.087	0.000
INC					0.589	0.086	6.861	0.000
PRC					1.216	0.111	10.967	0.000
PC					-0.549	0.244	-2.251	0.027
SIZE	0.496	0.068	7.291	0.000	0.391	0.043	9.135	0.000
FIN	-0.395	0.030	-13.197	0.000	-0.315	0.032	-9.753	0.000
YEAR1	-0.114	0.014	-8.415	0.000	-0.075	0.010	-7.521	0.000
YEAR2	-0.091	0.003	-26.764	0.000	-0.053	0.004	-13.174	0.000
C	5.125	0.615	8.333	0.000	6.242	0.426	14.666	0.000
R <sup>2</sup>		0.729				0.850		
Adj.R <sup>2</sup>		0.712				0.832		
F-value		44.543				49.589		
Prob.		0.000				0.000		
DW		0.936				0.997		

Source: Extracted by the Authors

## 5. Conclusion and Recommendations

The study has investigated the potential effect of ICD on corporate market value surrogated by market capitalisation which was measured by number of shares ranking for divided and product of end year share price. The study employed content analysis for the annual reports of the top 30 Nigerian listed firms from 2016 to 2019. IC was classified as innovation capital, human capital, protected capital, process capital and external capital. Overall IC disclosure and innovation, external capital and protected capital disclosure significantly and positively influenced Nigerian listed companies' market value. This mean the more these are disclosed, the better the firms' market value is. Contrary to expectation, human and process capital disclosure negatively affected market value, which suggests that these components are not necessarily valued by Nigeria investors.

Practically, one would expect the people in charge of governance to pay attention to IC information disclosure in financial reports because investors are conscious of IC information. However, this is subject to certain limitations, which future studies could investigate to extend the present research. Since this study used 30 top listed firms NSE, its findings cannot be generalized to cover smaller firms. Further research is needed to empirically find out if the results are generalizable to all listed companies regardless of their sizes.

## References

- Abdalmohammadi, M. J. (2005). Intellectual capital disclosure and market capitalisation. *Journal of Intellectual Capital*, 6(3), 397-416.



- Abeysekera, I. (2008). Intellectual capital disclosure trends: Singapore and Sri Lanka. *Journal of Intellectual Capital*, 9(4), 723-737. doi:10.1108/14691930810913249
- Abhayawansa, S., & Abeysekera, I. (2008). An explanation of human capital disclosure from the resource based perspective. *Journal of Human Resource Costing and Accounting*, 12(1), 51-64.
- Alfraih, M. M. (2017). The value relevance of intellectual capital disclosure: empirical evidence from Kuwait. *Journal of Financial Regulation and Compliance*, 25(1), 22-38. doi:10.1108/JFRC-06-2016-0053
- An, Y., Davey, H., & Eggleton, I. R. C. (2011). Towards a comprehensive theoretical framework for voluntary IC disclosure. *Journal of Intellectual Capital*, 12(4), 571-585. doi:10.1108/14691931111181733
- Anam, O. A., Fatima, A. H., & Majdi, A. R. H. (2011). Effects of intellectual capital information disclosed in annual reports on market capitalisation: Evidence from Bursa Malaysia. *Journal of Human Resource Costing & Accounting*, 15(2), 85-101. doi:10.1108/14013381111157328
- Anifowose, M., Abdul Rashid, H. M., & Annuar, H. A. (2017). Intellectual capital disclosure and corporate market value: does board diversity matter? *Journal of Accounting in Emerging Economies*, 7(3), 369-398. doi:doi:10.1108/JAEE-06-2015-0048
- Bontis, N. (1996). There's a price on your head: managing intellectual capital strategically. *Business Quarterly*, 60, 40-78.
- Bontis, N., Dragonetti, N. C., Jacobsen, K., & Roos, G. (1999). The Knowledge Toolbox: A Review of the Tools Available to Measure and Manage Intangible Resources. *European management journal*, 17(4), 391-402.
- Bounfour, A. (2002). *How to measure Intellectual Capital's dynamic value: the IC-dVAL approach*. Paper presented at the 5th World Congress on Intellectual Capital, McMaster University, Hamilton, Ontario, Canada.
- Bounfour, A. (2003). The IC-dVAL approach. *Journal of Intellectual Capital*, 4(3), 396-413. doi:10.1108/14691930310487833
- Brooking, A. (1996). *Intellectual Capital: Core asset for the third millennium*: Cengage Learning EMEA.
- Chang, S. (2007). *Valuing Intellectual Capital and Firms' Performance: Modifying Value Added Intellectual Coefficient (VAIC™) in Taiwan IT industry*. (Doctoral of Business Administration Program), Golden Gate University.
- Edvinsson, L., & Malone, S. M. (1997). *Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Brainpower*: HarperBusiness: New York.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (3rd ed.). London: Sage.
- Gamerschlag, R. (2013). Value relevance of human capital information. *Journal of Intellectual Capital*, 14(2), 325-345. doi:10.1108/14691931311323913
- García-Meca, E., Parra, I., Larrán, M., & Martínez, I. (2005). The explanatory factors of intellectual capital disclosure to financial analysts. *European Accounting Review*, 14(1), 63-94.



- Haji, A. A., & Mubaraq, S. (2012). The trends of intellectual capital disclosures: evidence from the Nigerian banking sector. *Journal of Human Resource Costing & Accounting*, 16(3), 184-209. doi:10.1108/14013381211286360
- Hsu, Y.-H., & Fang, W. (2009). Intellectual capital and new product development performance: The mediating role of organisational learning capability. *Technological Forecasting and Social Change*, 76(5), 664-677. doi:10.1016/j.techfore.2008.03.012
- Joia, L. A. (2000). Measuring intangible corporate assets: linking business strategy with intellectual capital. *Journal of Intellectual Capital*, 1(1), 68-84.
- Keeney, R. L., & Keeney, R. L. (2009). *Value-focused thinking: A path to creative decisionmaking*: Harvard University Press.
- Lynn, B. (1998). Intellectual capital: key to value-added success in the next millennium. *CMA magazine*, 72(1), 10-15.
- Mahamad, T., & Salman, R. T. (2011). Intellectual capital reporting in Nigeria: A way forward. <http://www.aibuma.org/abstract.php?value=101>.
- Mangena, M., Pike, R. H., & Li, J. (2010). *Intellectual capital disclosure practices and effects on the cost of equity capital: UK evidence*: Institute of Chartered Accountants of Scotland.
- Marr, B., & Chatzkel, J. (2004). Intellectual capital at the crossroads: managing, measuring, and reporting of IC. *Journal of Intellectual Capital*, 5(2), 224-229. doi:10.1108/14691930410533650
- Morris, R. D. (1987). Signalling, agency theory and accounting policy choice. *Accounting and business research*, 18(69), 47-56.
- Mouritsen, J., Bukh, P. N., & Marr, B. (2004). Reporting on intellectual capital: why, what and how? *Measuring Business Excellence*, 8(1), 46-54.
- M'Pherson, P. K., & Pike, S. (2001). Accounting, empirical measurement and intellectual capital. *Journal of Intellectual Capital*, Vol. 2(No. 3), pp. 246-260.
- Oliveira, L., Rodrigues, L. L., & Craig, R. (2006). Firm-specific determinants of intangibles reporting: evidence from the Portuguese stock market. *Journal of Human Resource Costing & Accounting*, 10(1), 11-33.
- Orens, R., Aerts, W., & Lybaert, N. (2009). Intellectual capital disclosure, cost of finance and firm value. *Management Decision*, 47(10), 1536-1554.
- Ousama, A. A., Fatima, A. H., & Hafiz, A. R. M. (2011). Usefulness of intellectual capital information: preparers' and users' views. *Journal of Intellectual Capital*, 12(3), 430-445. doi:10.1108/14691931111154724
- Parshakov, P., & Shakina, E. (2020). Do companies disclose intellectual capital in their annual reports? New evidence from explorative content analysis. *Journal of Intellectual Capital*, 21(6), 853-871. doi:10.1108/JIC-03-2019-0040
- Pulic, A. (2000). MVA and VAIC analysis of randomly selected companies from FTSE 250. *online] www.vaicon.net*.
- Rooney, J., & Dumay, J. (2016). Intellectual capital, calculability and qualcaluation. *The British Accounting Review*, 48(1), 1-16. doi:<http://dx.doi.org/10.1016/j.bar.2015.07.002>



- Roos, J., Roos, G., Dragonetti, N. C., & Edvinsson, L. (1997). Intellectual Capital. Navigating in the new business landscape: MacMillan Press, London.
- Salman, R. T., Mansor, M., Babatunde, A. D., & Tayib, M. (2012). Impact of Intellectual Capital on Return on Asset in Nigerian Manufacturing Companies. *Interdisciplinary Journal of Research in Business*, 2(4), 21- 30.
- Sang, K. H., & Taylor, D. (2014). Intellectual capital vs the book-value of assets: A value-relevance comparison based on productivity measures. *Journal of Intellectual Capital*, 15(1), 65-82. doi:10.1108/jic-04-2013-0048
- Spence, M. (1973). Job market signaling. *The quarterly journal of Economics*, 355-374.
- Stewart, T. A. (1991). Brainpower: How Intellectual Capital is Becoming America's Most Valuable Assets. *Fortune*, 123(11), 44-70.
- Stewart, T. A. (1997). Intellectual capital: The new wealth of nations. *New York*.
- Swartz, G., Swartz, N., & Firer, S. (2006). An empirical examination of the value relevance of intellectual capital using the Ohlson (1995) valuation model. *Meditari Accountancy Research*, 14(2), 67-81.
- Uadiale, O. M., & Uwuigbe, U. (2011). Intellectual Capital and Business Performance: Evidence from Nigeria. *Interdisciplinary Journal of Research in Business*, 1(10), 49-56.
- Vafaei, A., Taylor, D., & Ahmed, K. (2011). The value relevance of intellectual capital disclosures. *Journal of Intellectual Capital*, 12(3), 407-429. doi:10.1108/14691931111154715
- Watson, A., Shrivies, P., & Marston, C. (2002). Voluntary disclosure of accounting ratios in the UK. *The British Accounting Review*, 34(4), 289-313.
- Whiting, R. H., & Miller, J. C. (2008). Voluntary disclosure of intellectual capital in New Zealand annual reports and the "hidden value". *Journal of Human Resource Costing & Accounting*, 12(1), 26-50.
- Widarjo, W., & Bandi. (2018). Determinants of intellectual capital disclosure in the IPOs and its impact on underpricing: Evidence from Indonesia. *International Journal of Learning and Intellectual Capital*, 15(1), 1-19. doi:10.1504/IJLIC.2018.088346
- Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*: MIT press.
- Zhicheng, L., Zhuoer, C., Shing, L. T. T., & Wah, C. S. K. (2016). The Impact of Intellectual Capital on Companies' Performances: A Study Based on MAKE Award Winners and Non-MAKE Award Winner Companies. *Procedia Computer Science*, 99, 181-194. doi:http://dx.doi.org/10.1016/j.procs.2016.09.110





## EXAMINING THE EFFECTS OF COVID-19 ON HOUSEHOLD FOOD SECURITY STATUS AND COPING STRATEGIES ADOPTED DURING LOCKDOWN PERIOD IN KANO, NIGERIA

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### Abstract

Poverty and food security challenges go hand in hand; however, as the COVID-19 pandemic goes global, poverty and food security challenges deteriorated to a new level. Before the epidemic, an estimated 2 billion people were projected to be food insecure in the world. However, with COVID-19 pandemic, the figure is expected to be much more than the projection. The purpose of the study is to examine the effects of COVID-19 on household food security status and the coping strategies adopted during the lockdown period in one of the most populous location in Nigeria, which is Kano. Food Security Index (FSI) shows 54 per cent of the households in Kano, Nigeria, are food insecure with a food security index of 0.66 and per capita daily calorie intake of 1,789.51 kcal. Disaggregating the households according to regions, show that households from Kano south are more food insecure than in Kano north or Kano Metropolitan. Results from the coping strategy index also reveal that the average CSI in the study area is 61 indicating a severe food security challenge due to COVID-19 measures. Disaggregating the CSI further into regions shows that Kano south has the highest average CSI in Kano, Nigeria. Analysis reveals that government and indigenous private business individuals and organisations are not doing enough during the lockdown period, therefore the need for more effort especially among households in Kano south where the number of food-insecure households is the highest. The government also needs to take responsibility and accountability of the palliatives given to the households in Kano, Nigeria.

**Keywords:** Covid-19, Calorie, Disaggregating, Palliatives, In-Context.

### 1. Introduction

The challenges faced by the world as a result of food security are shaping into a new and different dimension with Corona Virus Disease 2019 (COVID-19) pandemic. According to Food and Agricultural Organisation (FAO); International Fund for Agricultural Development (IFAD); United Nations Children Emergency Fund (UNICEF); World Food Programme (WFP) and World Health Organisation (WHO) and in line with Sustainable Development Goals (SDGs) indicator 2.1.2, it is estimated that about 2 billion individuals will be facing some form of food insecurity challenges in the world by 2019. This comprises both moderately and highly food insecure people (FAO et al., 2019). An estimated 676 million people, out of the total 2 billion people are in Africa; About 1 billion are found





in Asia, while an estimated 89 million are found in Northern America/Europe (FAO et al., 2019). In Africa, a projected 70 million people are residing in Northern Africa, while about 606 million people are living in Sub Saharan Africa (SSA) by the end of 2018 (FAO et al., 2019). Some of the reasons for such a vast number of hungry people in the world especially with the variation include conflicts and displacement, urbanisation, climate change, extreme poverty and gender inequality (FAO et al., 2019). However, one serious pandemic that is taking the world by storm and seriously affecting the household's food security status, which the world has not put into consideration, is COVID-19.

Previously, known as novel Coronavirus disease (2019) which relates mostly to Acute Respiratory disease or Syndrome caused by  $\beta$ -coronavirus or Coronavirus-2 (SARS-CoV-2), the virus originated from Hubei Province of China in the city of Wuhan in December 2019 when WHO reported a mysterious Pneumonia in the city (Zhu et al., 2020; Li et al., 2020). The virus quickly circulated all over the universe with the speed of light; consequently, becoming a global pandemic by March 11, 2020, recording over three (3) million cases and over 208,000 death among 213 countries and province (WHO, 2020a). According to Organisation for Economic Co-operation and Development [OECD], (2020) uncertainty is extremely high concerning the full scale of the pandemic in African continents due to underreporting of cases and accuracy in term of data collections in the regions. However, various governmental organisations have adopted measures to control the pandemic, which include social distancing, schools' closure, discouraging large gathering of individuals, restriction of travelling.

Over 52 African countries have recorded Covid-19 cases with Egypt having the experience of first case on February 14, 2020 (WHO, 2020b). In Nigeria, the origin of COVID-19 infection can be traced back to 27th February, 2020 when the first index case involving an Italian national was recorded in Lagos. By 27th March the country marked 27 suspected cases from five (5) States including Kano State, even though without any death. As at 16th June, total confirmed cases in the country was 17,148 and reported deaths of 455. Kano recorded total confirmed case of 1,158 with 50 deaths out of tested samples of 8,432 as at 16<sup>th</sup> June 2020 (National Centre for Disease Control [NCDC], 2020). According to Gilbert et al. (2020), the more the tests, the likelihood of recording higher cases, generally Nigeria has a modest risk and variable capacity to control the COVID-19 outbreak.

COVID-19 has a direct relationship with food security, in that the origin of the virus is directly from the food system traced to wet market of Wuhan city in China, which deals in a wild animal. The pandemic is presently threatening the food security of billions of people in addition to the already existing challenges of food security highlighted earlier, even though it was assumed initially that the pandemic would not affect the global food security (Vos, Martin & Laborde, 2020). In the same vein, De Sousa (2020) observed that currently there is a serious warning concerning the number of hungry people that may be affected by the pandemics, mostly as a result of the destruction of the food supply chains, running or almost doubling the present figure. WFP estimate that by the end of 2020, the number of



people that will face acute food insecurity due to COVID-19 will be twice as many as before the COVID-19.

Zurayk (2020) observed that the pandemic has a negative impact with all the four fundamental dimensions of food security as defined by FAO (2003) which include availability, accessibility, utility and stability, which will further affect the sustainability of food security in the world. With no approved treatment of COVID-19 presently, the virus is severely impacting both national healthcare system as well as socio-economic stability in the world (WHO, 2020b). For instance, according to Evenlyn (2020), healthcare system in terms of quality and economic inequality has resulted in the death of numerous black American, while Galea (2020) observed that poor and marginalised will be severely hit by COVID-19 pandemic in the world and the USA in particular.

The World Bank (2020c) estimated that 60 million individuals living on less than US\$2 per day would be forced into extreme poverty as a result of the COVID-19 pandemic lockdown under the worst-case scenario. While in the best-case scenario, an estimated 49 million people will be forced into extreme poverty due to COVID-19. This is due to shut down in economic activities all over the globe. Already the most deprived people have started feeling the impacts of the pandemic with migrant workers across the world losing jobs, this will subsequently, affect the flow of remittances by at least 20% downward globally or about US\$100 billion will be lost due to remittance in the world in 2020 alone, which will also affect the food security (World Bank, 2020b).

The pandemic will also cause billions of people in Africa to become destitute. People from SSA will suffer the most impact, with about 39 countries out of the 100 countries found in the SSA, and a projected 23 million people living in SSA heading to extreme poverty in the region alone. South Asia might likely suffers from the same fate, with about 16 million people forced into abject poverty. In comparison, India is expected also to have an estimated 12 million people forced into extreme poverty. Nigeria and Democratic Republic of Congo each will have 5 million and 2 million people forced into abject poverty (World Bank, 2020c).

Several African nations have employed various economic and social support programmes. Unfortunately, the reality is less than 20 per cent of the African population are formally employed, with no social security system in place for those in the informal sector. Most of the countries in Africa are very poor in term of national coffers even before the COVID-19 pandemic. Therefore, there is the need of international communities to step in to assist the African continents in fighting the epidemic; subsequently, writing off some of the already existing debts will go a long way in reducing the problems (World Bank, 2020a).

Recent National Bureau of Statistic (NBS) report stated that more than 83 million people in Nigeria are poor, which translated into 40.1 per cent of the total population. This also means that for every ten (10) people at least four (4) people are poor with a yearly real per capita expenditure estimated at below N137,430 (US\$381.75) by the national standard. The report furthermore states that individual monthly income from the above category is



estimated at N11,500 (US\$31,94) with a daily income of less than a dollar N38.00 (NBS, 2020). Accordingly, poverty head count in Kano is estimated to be 55.1 per cent which is clearly above average or the national standard in the country (NBS, 2020). This deplorable state of poverty estimation was without the impact of COVID-19, which when compared with the rate of poverty will be much bigger than the above figure (NBS, 2020). World Bank report further stated that, 43 per cent of the poorest people are residing in Nigeria (World Bank, 2020a).

COVID-19, in general, affected the economic activities and subsequently increased the costs of food items. Annual inflation in the country has risen for straight eight-month peaking up in April as a result of the spread of COVID-19, which resulted in higher food prices throughout the country due to lockdown in economic activities. The inflation rate was 12.34 per cent which represents the highest level in more than two (2) years in the country (NBS, 2020); this is in addition to the current rate of unemployment and low level of livelihood in the country even before the COVID-19 pandemic. The country is all set for a recession which will also affect the status of food security of households.

Empirical evidence of the impact of COVID-19 on food security status in the world is presently very few. The virus has a devastating effect and can easily affect the food security status of households either directly or indirectly. Reports have shown that 60 per cent of the deaths witnessed in the early stage of the pandemic in Kano is linked to COVID-19, especially among the elderly household heads. The pandemic has also resulted in distorting the food supply chain in Kano, which also affects the food security status of households, subsequently, doubling the prices of some staple foodstuffs in the State. On the other hand, the stringent measures put in place by the government to control the spread of the virus further compounded the issue of food security status of households in Kano. The study is the first of its kind in Kano, Nigeria. The paper will also assess the status of food security and coping strategies adopted by the households due to the lockdown as a result of COVID-19 in Kano, especially the impact of palliative and other government support to individual households in Kano.

## **2. Literature Review**

Hossain (2020) investigated the impacts of COVID-19 on Agri-food sector: food security policies on member countries of Asian Productivity Organisation (APO), using publicly accessible information. Findings show that short-term, medium-term and long-term challenges in food security due to COVID-19 have a different degree of impact among the member countries. The longer the pandemic containment measures continue, the more challenges faced in the recovering process will be for ensuring smooth accessibility in terms of food production of staple food and nutrition among the member countries as well as the trade relationship.

Galanakis (2020) investigated the food systems during COVID-19 pandemic crisis. The study's objectives are to provide information on bioactive components of food and herbs



that assist human immune system against COVID-19 infections, identify the global food security challenges as a result of COVID-19 contentment of lockdown and stress the significance of sustainability in the food chain to reduce the frequency of food security and healthcare system crises in the world. Nouh, Elfagi and Omar (2020) also studied the paradox between food insecurity and weight gain by providing a conceptual proposal joining weight gain and food insecurity amid COVID-19 outbreak.

Deaton and Deaton (2020) investigated food security and Canada's agricultural system challenged by COVID-19. Using the Household Food Security Survey Module (HFSSM) the Canadian Community Health Survey (CCHS), the study observed that there is a noticeable increase in demand and supply chain disturbances without broad, speedy appreciation in food prices indicating lack of adequate supply of food in the near future. The finding further reveals minimal certainty over the medium and long term due to numerous factors which are instability, especially the rate of the spike in the sickness of death globally and the country.

### **3. Methodology**

The research was conducted in Kano, Nigeria, which has a total surface area estimated approximately at 20,400 km<sup>2</sup> and considered as one of the most populous cities in the country with population estimated at 9,401,288 people according to the recent population census (National Population Commission [NPC], 2006). With an estimated annual growth rate in a population of 2.8 per cent, the population figure is expected to be around 12,626,500 as in 2015 (NPC, 2016; NBS, 2016). The State lies in the northern part of the country, sited in the northwest region, with an estimated annual rainfall ranging 600-1,200 mm from the Northern Guinea Savannah and an expected rainfall of 300-600 mm from the Sudan Savannah. On the average, rainfall estimated around 840 mm running for approximately for three (3)–Four (4) months duration depending on the location. The average annual temperature ranges from 30<sup>0</sup>C – 45<sup>0</sup>C with the maximum temperature running normally from February to May every year (NBS, 2012).

The unit of the study is the household head which can either be a male-headed or a female-headed household. The sampling procedure employed was multistage stratified non-probabilistic sampling method involving four stages. In the first stage, Kano is stratified into Kano urban and Kano rural. Secondly, further stratification was conducted to stratify Kano rural into Kano north and Kano south. At the same time, Kano urban was classified as Kano metropolitan. This is to enable the research to have a more comprehensive coverage among the households in the State.

The State has a total number of 44 Local Government Areas (LGAs). Kano metropolitan has eight (8) LGAs, Kano north has 17 LGAs, while Kano south has 19 LGAs. In the third stage, two (2) LGAs (Gwale and Kano municipal) were selected from Kano metropolitan. At the same time, four (4) LGAs each from Kano north (DawakinTofa, Gwarzo, Karaye&Kunchi) and south (Kura, Sumaila, Gaya &Wudil) were selected, making a total of 10 LGAs for the study.



According to the recent Census in the State, there are about 1,603,300 regular households in Kano (NPC, 2006). A total of 426 regular households were selected for the survey. Fifty (50) respondents each from Kano metropolitan and 325 respondents from Kano rural (164 regular households from Kano north and 161 regular households from Kano south) were selected. The fourth stage involved selection of households from wards in each LGA selected from the regular households with a maximum of 5 wards.

A questionnaire was distributed to the respondent household heads, which comprises both farming and non-farming household heads. The questionnaire was designed to achieve the objectives of the study, which include the socio-economic characteristics of the household heads adopted from Action Against Food (ACF) – Food and Security and Livelihood Assessments, with a slight modification to suit the communities in the study area. Questionnaire on the Coping Strategy Index (CSI) was adopted from Feinstein International Centre, Tufts University and TANGO (2008) also with a slight modification to accommodate some of the strategies adopted by the household heads in Kano especially, during the COVID-19 lockdown.

The data collection took about two months to collect from the time of the first State lockdown in April-Mid June 2020. Five (5) research assistants were employed to assist in the administering of the questionnaire.

Food Security Index (FSI) and In-Context Coping Strategy Index (Original CSI) were used while analysing the food security status of the households. The FSI was selected because it is simple and easy to convert the calorie consumption of households and compared it with the recommended calorie requirement, especially in a low-income country like Nigeria. The index also uses the food consumption pattern of each household in the study area. At the same time, In-the-Context CSI has the flexibility to accommodate additional coping strategies and measure their impact or relevance during COVID-19 lockdown.

#### *Food Security Index*

Food Security Index (FSI) measures individuals and household calorie intake. FAO recommended an average daily individual calorie intake based on country and province of the world. The organisation further suggested an average calorie consumption per day of 2,710 kilocalorie (kcal) for an individual in Nigeria. A household with a daily average (per capita) calorie consumption of 2,710 kcal or more is food secure. In comparison, average calorie consumption below 2,710 kcal the household is then considered food insecure (FAO, 2017).

The index involves two procedures, the identification and aggregation. Setting up and recognising the minimum nutritional level that is required to sustain a nutritious level is known as identification. This level is the line of food security level, which defines a household as food secure when equal or above one (1) or food insecure if the level is below one. The aggregation procedure, on the other hand, is the total recommended average daily calorie obtained for a household after considering the adult equivalent (FAO 2016).



Daily per capita calorie requirement or daily average calorie requirement is calculated by demarcating the household's members into different age group since each diverse group have different calorie requirement, which then is converted into Adult Equivalent Scale [AES] (Stefan & Pramila, 1998). Table 1 shows the average adult adjusted scale as recommended by the joint report of FAO, WHO and United Nations University [UNU] Expert Consultation (FAO, 2004) also adopted by Stefan and Pramila (1998) and Mukhtar, Kamaruddin and Applanaidu (2018a).

Table 1: Average Daily Calorie Recommendation/ Factor Conversion

Age (Yrs) Category	Average Daily Calorie	Factor Equivalent
Children less < 6 Yrs	813	0.30
Children 7-18 Yrs	1,897	0.70
Adults Above 18 Yrs	2,710	1.00

Source: Mukhtar et al. (2018a)

The total calorie requirement of each household is derived by taking the aggregate total number of adult equivalent and then multiplied by the country's recommended daily calorie per capita. For instance, a household with four (4) children under the age of six (6) years, the adult equivalent will then be [6 children \*Adult Equivalent 0.3 = 2 adults]. Hence calorie requirement for the 6 children under the age of 6 years will then be [2 adults\*2,710 kcal = 5,420 kcal] (Mukhtar et al., 2018b; Mukhtar, 2020a; Mukhtar, 2020b). The procedure is then repeated for each age group in the household to obtain the total summation of the total calorie requirement for all three categories for the entire household. The per capita calorie requirement for the household is obtained by dividing the total adult equivalent in the household.

Households' daily calorie intake or consumption depends on the household's own food production, foodstuff purchased for household consumption, food from other sources different from own production and foodstuff purchased for consumption purpose. Household food consumed was obtained for a week and converted into a daily average in the form of the kilogram. The total quantity of food consumed in kilogram (energy per kilogram) was determined using Oguntona and Akinyele (1995) in Appendix 1, which when multiplied by the energy content will give the total kcal of each food consumed daily. Therefore, FSI is given as follows:

$$\chi = \frac{Y_i}{R} \dots\dots\dots 1$$

where  $\chi$  is the household food security status which can be one (1) or above as household being food secure or below one (1) as a food-insecure household.  $Y_i$  represents the daily per capita calorie intake/consumed of  $i^{th}$  household, while R is the daily per capita calorie recommendation in a household in Nigeria set up by FAO.

The difference between the outcome of the index indicates either the shortfall or surplus index. The shortfall evaluates the magnitude to which household is food insecure, therefore



the higher the shortfall, the more severe the food insecurity in the household, while the surplus indicates the extent of the comfortability in terms of food security, the bigger the surplus, the more household are food secure. The index in terms of shortfall or surplus is given as follows:

$$A = \frac{1}{m} \sum_{i=1}^m H_i \dots\dots\dots 2$$

$$H_i = \frac{Y_i}{R} \dots\dots\dots 3$$

where m defines the quantity of households classified as food secure or food insecure,  $H_i$  is the per capita calorie intake deficiency or surplus. Household head count ratio identified the percentage of the households' food security status (food secure or food insecure) and is given as follows:

$$\pi = \frac{m}{n} \dots\dots\dots 4$$

where n is the total number of the sampled households in the study area.

*Coping Strategy Index*

According to the Food and Nutrition Technical Assistance [FANTA], (2003), Coping Strategy Index (CSI) measures the different consumption patterns espoused by the household for the duration of a food shortage or inadequate access to food over time. The index comprises numerous questions on how best household fare the food shortage capture in a simple score. The index is built based on the outcomes to a single question "what happens when there is enough food consumption, but the resources to purchased are the constraint?" The index is suited to serve as a tool during emergencies situation, especially when other tools fail or unpractical. Therefore, CSI measures the number of events happening (frequency) and the structural adjustment made by the household in terms of food consumption. The index achieved the following purposes: provide the extent of food security challenges quick and fast, assess the impact of food assistance programmes, provide an early signal of an impending food crisis and point the causes of malnutrition and the location in dire need of food assistance (FANTA, 2003). In summary, CSI determines whether food security challenges in a household is increasing or decreasing (Maxwell, 1996).

Two adaptable strategies were identifiable in a household whenever faced with issues of food security (FANTA, 2003; Mukhtar, 2019c; Mukhtar, 2020b). Firstly, the short-term consumption adjustment and the long-term adjustment in income generation capacity, production patterns and one-time solution in household's resources like disposal of assets to purchase foodstuff or using of business capital (FANTA, 2003). Under the short-term strategy, household immediately change consumption pattern the moment there is the slightest indication of shortage in terms of food consumption and might not wait for the situation to escalate, this accordingly indicates a problem with food security in a household (Maxwell et al., 1999). Long-term strategies show a deteriorating food security challenges





in a household, hence the tendency of adopting strategies that considered to be severe and irreversible, which subsequently resulted in critical and severe food security challenges (Devereux, 1993; Mukhtar, 2019a; Mukhtar, 2020b).

According to FAO (2008), households adopt four (4) kinds of consumption adjustment patterns whenever faced with food security challenges. However, the severity may likely differ from one household to the other. These strategies include the following: Firstly, dietary plans trade-offs, shifting from most preferred food to less and sometimes cheap foodstuff; changes in food stock through short-term strategies considered unsustainable for instance, borrowing or purchasing food on credit or sometimes adopting severe strategies like begging or eating wild foods, immature crop or stock of seeds; reducing the number of household members to another place to allow for available food in the household and rationing of food available to the household.

CSI is measured using two (2) approaches, namely In-Context or Original CSI and Comparative/Reducing CSI (Universal Approach). The underpinning assumptions are based on the fact that the general question and the corresponding responses must strictly be on the right list of coping behaviours prevailing in the study area; the frequency of the behaviours used in the recent time and the severity of each strategy specified (FANTA, 2003). Since there is COVID-19 and various measures are put in place to reduce infections, especially the lockdown in the State, numerous coping strategies are put forward by various households in Kano; this prompt the adoption of In-Context CSI. The advantage of this approach is the flexibility of identifying the existing strategies available. Specifically, the study wants to assess the impact of palliative measure put in place by the government to reduce the suffering of poor households in the study area.

The approach weighted a given frequency consumption pattern habits based on the severity of the pattern, which is then summed up to all the consumption behaviours in the list as obtained from the study area, which is the first pillar. The aim is to provide the status of food security in both the present condition and the future, subsequently the higher the score of the index, the higher the level of coping strategies is expected and the higher the challenges faced by the households in term of food security (FANTA, 2003). The second pillar is to identify and rank the severity of the coping strategies in line with households' responses, with ranges from 1-less severe coping strategy – 4- highest coping strategies (Maxwell & Caldwell, 2008).

#### **4. Results**

Descriptive analysis from Table 2 shows the socio-economic profiling of the household heads from the study area. There is a total of 425 household heads; about 85 per cent are headed by a male, while 15 per cent are headed by female household heads. The average age among the household heads is estimated at 41 years. The average age among household heads indicates that the household heads are in their productive age, which is a good signal for achieving food security status. In terms of marital status, 89 per cent are married, 3 per cent are divorced, and 8 per cent are widowed. The average household size in the study





area is estimated at ten (10) individuals per household, comprising six (6) children under the age of 18 years, while an average of four children in school and four (4) adults individuals. Households' response further stresses that COVID-19 has impacted negatively toward children education since school are close to control the pandemic. However, an astonishing outcome of the survey is that majority, or 65 per cent of the respondents believed that COVID-19 is purely a hoax and only a means through which government can mobilise assistance locally and internationally.

In terms of household classification, an estimated 60 per cent are farming household, while 40 per cent are non-farming household. Average farming experience among the farming households is estimated at 31 years, while average cultivable land is estimated at four-hectare (4ha). Land ownership structure reveals that majority or about 64 per cent are inherited/family, 25 per cent privately owned, while 2 per cent and 9 per cent are community and rented land respectively. In term of labour contribution in farming, about 67 per cent are hired labour, while 33 per cent are family labour. However, evidence has shown that most of the farmers are affected by the lockdown, which will subsequently distress the status of food security in Kano, Nigeria in future.

Educational background from Table 2 reveals that about 13 per cent have a non-formal education; 18 per cent have a primary school certificate, an estimated 20 per cent have SSCE/GCE. In contrast, 30 per cent and 16 per cent have NCE/OND and Bsc/HND, respectively. Only 5 per cent have M.Sc./Ph.D certificate. In term of occupation, majority or about 50 per cent of the household heads are into Public sector employment, about 11 per cent are into the private sector, while 39 per cent are into the farming sector. Although there is no evidence of loss of job from the public sector employment, about 43 per cent of the household heads under the private sector employment indicated a loss of employment and subsequently a slight reduction in both income and food security status by the affected households. However, majority of the public sector employees reported a reduction in income earned effectively from April 2020 because the government has reduced salary of all the employees of 20 per cent – 30 per cent depending on the grade level. This finding is in line with recent results by NBS (2020) which stated that about 42 per cent job lost due to COVID-19 in Nigeria and that the impact is severe in commercial, service and agriculture. Also, according to United Nations Economic Commission for African [UNECA], (2020) even though Africa will be accounted for an insignificant percentage of people affected by the pandemic in terms of death, however, it is estimated that the continent may as a result of COVID-19 lose more than 60 million jobs if total lockdown is implemented in the continents.

Average monthly expenditure among households is estimated at N115,000 (US\$319), while average households' income is estimated at N132,000 (US\$367) monthly. Findings from the NBS (2020) reveal that 79 per cent of the Nigerians have reported a significant reduction in both household income and expenditure since mid-March 2020. While purchasing staple foodstuffs by households is becoming harder by the day. Both average income and expenditure are also in line with findings by World Bank (2020) that a large



number of individuals are surviving on less than US\$1.90 (N684). Since each household has an average of ten (10) individuals and that average monthly expenditure is estimated at N115,000 (US\$319) it will translate into a daily household expenditure of N3,800 (US\$11) and daily individual expenditure of N380 (US\$1.06). Although previous researches have reported a slightly different income and expenditure by households in the study area, however, this finding indicates that COVID-19 is impacting on the income and expenditure of households in the study area. Also, the State government has reduced the salary of the public sector employees ranging from 10 per cent – 30 per cent depending on the grade, effective from May 2020.

Farming households' production among farming household heads reveals that about 90 per cent of the production annually goes to market for sale, which translates into an average of N1,081,000 (US\$3,003). The farming households consume about 6 per cent of the total annual production, which translates into an average of N72,000 (US\$200). In contrast, 2 per cent of the yearly production is set aside for donations and seedling for the next farming season. Farming household production finding is based on the previous year output. However, most farming households are not optimistic about this year's farming production. This is, as a result of measures put in place to control COVID-19 spread among the community and individuals. Already, the farming season has since started, but farmers are still under the lockdown, while markets for raw materials also remained closed due to COVID-19 pandemic.

**Table 2 Socio-economic Profiling for Farming and Non-farming Households**

General Households			Farming Households		
Variable	%	Average	Variable	%	Average
Gender			Farming Experience (Yrs)		31
Male	85		Cultivable Land (ha)		4
Female	15		Land Ownership		
Marital Status			Private	25	
Married	89		Family	64	
Divorced	3		Community	2	
Widowed	8		Rented	9	
Age		41	Labour Contribution		
Household Size		10	Hired	67	
Under 18-Years		6	Farming	33	
Adults		4	Household Production		
Household Classification			<i>Consumption</i>	6	
Farming Household	60		Naira		72,240
Non-Farming	40		Dollar		200
Occupation			<i>Sales</i>	90	
Public Sector	51		Naira		1,083,600
Private Sector	10		Dollar		3,010
Farming	39		<i>Donation</i>	2	
Educational Background			Naira		24,080



Non-formal Education	13	Dollar	67
Primary School Certificate	18	Seed	2
SSCE/GCE Certificate	20	Naira	24,080
OND/NCE	30	Dollar	67
Bsc/HND	16		
M.Sc./PhD	5		
Monthly Expenditure			
Naira	115,000		
Dollar	319		
Food Expenditure	29		
Non-food Expenditure	71		
Monthly Income			
Naira	132000		
Dollar	367		

*Note: Naira exchange at CBN official rate of N360/US\$1*

*Source: Research Survey, 2020*

Analysis from the FSI is presented in Table 3. Indication from Table 3 reveals that food security index is 0.66 in the study area, clearly indicating that the Kano State is food insecure, especially during the lockdown period as a result of COVID-19 pandemic. The table also reveals that total Daily Calorie Consumption (DCC) among the households is estimated at 5,053,580.60 kcal. In comparison, total Calorie Requirement (CR) among the Adult Equivalent or households is estimated at 7,673,702 kcal. With total AE of 2,824 individuals in the study area, Per Capita Daily Calorie Consumption (PDCC) is estimated at 1,789.51 kcal clearly, below the recommended calorie requirement set by FAO of 2,710 kcal. The Per Capita Calorie Requirement (PCCR) among the AE in the study area is estimated at 2,717.32 kcal. Therefore, shortfall created from the index is estimated at 0.34, which indicates the gap that needs to be filled among the households to make the Kano food secure. On the aggregate, only 46 per cent of the households are food secure, while 54 per cent are food insecure.

**Table 3: Household Food Security Index/Status in Kano, Nigeria**

Description	Percentage	Kcal
Food Secure Households	46	
Food Insecure Household	54	
Total DCC		5,053,580.60
Total CR		7,673,702.00
PDCC		1,789.51
PDCR		2,717.32
Food Security Index ( $\chi$ )		0.66
Surplus/Shortfall Index ( $\alpha$ )		0.34
Adult Equivalent (AE)		2,824.00

*Note: where DCC stands for daily calorie consumption; CR – calorie requirement; PDCC – per capita daily calorie consumption; PDCR – per capita calorie requirement.*

*Source: Field Survey, 2020*



The index revealed how hard COVID-19 is impacting negatively on household’s food security status, which can subsequently result in a weak immune system to fight back the pandemic in Kano. Also, recent studies, especially those before the pandemic have shown a better food security index among households in Kano (Mukhtar et al., 2018a).

Table 4 further reveals that total DCC among the food secure households in the study area is 2,877,190.90 kcal, while total CR is 2,355,606 kcal among the households. PDCC, on the other hand, is 3,318.56 kcal and PCR is 2,716.96 kcal. The result indicates that households have surpassed the daily calorie requirement set by the FAO. Surplus index from Table 4 further reveals that the households considered to be food secure exceeded the threshold of 1 by about 22 per cent. Total AE in the study area that is regarded as food secure is 867 AE. On the other hand, Table 5 shows the food security index of households considered to be food insecure with total DCC of 2,176,389.90 kcal and total CR of 2,355,606 kcal. The PDCC is estimated to be 1,112.11 kcal, while the PCR is 2,717.47 among the total AE of 1,957 individuals. Food security index from Table 5 is 0.41, with food shortfall estimated to be around 0.59.

Table 4: Food Security Index for Food Secure Households in Kano, Nigeria

Description	Kcal
Total DCC	2,877,190.90
Total CR	2,355,606.00
PDCC	3,318.56
PDCR	2,716.96
Food Security Index ( $\gamma$ )	1.22
Surplus/Shortfall Index ( $\alpha$ )	0.22
Adult Equivalent (AE)	867

Source: Field Survey, 2020.

Food security index based on regional classifications as revealed in Table 4.4 shows that 48 per cent, 69 per cent and 31 per cent of the households in Kano north, Kano metropolitan and Kano south are food secure respectively. In contrast, 52 per cent, 31 per cent and 69 per cent of the households in Kano north, Kano Metropolitan and Kano south are food insecure respectively. This clearly shows that the negative impact of COVID-19 is much higher in Kano south and Kano north than Kano Metropolitan. Food security index from Table 7 further reveals that Kano north has an index of 0.65, Kano Metropolitan has 1.13 while Kano south has 0.49; this result further shows that Kano Metropolitan is relatively food secure during the lockdown period with a surplus index of 0.13 or 13 per cent, while both Kano north and Kano south are food insecure with a shortfall of 0.35 and 0.51 respectively. Total household DCC for Kano north, Metropolitan and south is estimated at 2,056,219 kcal, 1,371,542 kcal and 1,620,819 kcal respectively. In contrast, total CR among the households in Kano north, Metropolitan and Kano south is estimated to be 3,147,460 kcal, 1,218,958 kcal and 3,307,284 kcal respectively. With AE of 1,161, 446 and 1,217 for Kano north, Kano Metropolitan and Kano south respectively, this will translate into PDCC of 1,771.08 kcal, 3,086.42 kcal and 1,332 kcal as well as PCR of 2,710.99 kcal,



2,733.09 kcal and 2,718 kcal for Kano north, Kano Metropolitan and Kano south respectively.

Table 5: Food Security Index/Status for Food Insecure Households in Kano, Nigeria

Description	Kcal
Total DCC	2,176,389.90
Total CR	5,318,096.00
PDCC	1,112.11
PDCR	2,717.49
Food Security Index ( $\gamma$ )	0.41
Surplus/Shortfall Index ( $\alpha$ )	0.59
Adult Equivalent (AE)	1957

Source: Field Survey, 2020

Further disaggregating the household based on income classification, household size and educational qualification, as shown in Table 6, majority or about 41 per cent of the households considered to be food secure are within the income range of N101,000-N200,000 (US\$278-US\$556). In comparison, the majority or about 83 per cent of the households considered to be food insecure have income level within the range of N10,000-N100,000 (US\$28-US\$278). In terms of educational background, on the other hand, majority or about 43 per cent of the households considered as food insecure have low educational qualification ranging from non-formal education, primary certificate and SSCE/NCE. In contrast, the majority, 53 per cent of households have a higher educational background. In terms of household size, the majority of the food secure households or about 71 per cent have a household size between 1-20 individuals.

Table 6: Percentage Classification of Food Security Index based on Household Income, Size and Educational Background in Kano, Nigeria

Description	Food Secure	Food Insecure
<i>Income</i>		
N10,000-N100,000 (US\$28-US\$278)	35	83
N101,000-N200,000 (US\$281-US\$556)	41	17
N201,000-N300,000 (US\$558-US\$833)	11	0
N301,000-above (US\$836-above)	13	0
<i>Educational Background</i>		
Low Educational Qualification	17	43
Middle Educational Qualification	30	34
High Educational Qualification	53	23
<i>Household Size</i>		
1-10 Individuals	71	54
11-20 Individuals	28	41
21-above	1	5

Source: Field Survey, 2020



In comparison, about 28 per cent of the food secure households have a household size of 21-above individuals. On the other hand, the food-insecure household is even among the households with 54 per cent of the food-insecure households with 1-20 individuals and 46 per cent with 21-above individuals. About 54 per cent and 41 per cent of the food-insecure households have 1-10 individuals and 11-20 individuals, respectively.

Further disaggregating the food security index into regions in Kano, as indicated in Table 7, result shows that 48 per cent, 69 per cent and 31 per cent of households in Kano north, Kano Metropolitan and Kano south are food secure with food security index of 0.65, 1.13 and 0.49 respectively. The findings reveal that only Kano Metropolitan is food secure. Also, results show that 52 per cent and 69 per cent of households in Kano north and Kano south are food insecure while only 31 per cent of the households in Kano Metropolitan are food insecure. The result revealed that Kano south is facing severe food security challenges in Kano. However, it should be noted that both Kano north and Kano south have large adult equivalent than Kano with only 446 AE.

Table 7: Food Security Index based on Regional Households in Kano, Nigeria

Description	Kano north		Kano Metropolitan		Kano south	
	%	Kcal	%	Kcal	%	Kcal
Food Secure Households	48		69		31	
Food Insecure Household	52		31		69	
Total DCC		2,056,219		1,376,542		1,620,819
Total CR		3,147,460		1,218,958		3,307,284
PDCC		1,771		3,086		1,332
PDCR		2,711		2,733		2,718
Food Security Index ( $\gamma$ )		0.65		1.13		0.49
Surplus/Shortfall Index ( $\alpha$ )		0.35		0.13		0.51
Adult Equivalent (AE)		1,161.00		446.00		1,217

Source: Field Survey, 2020.

Findings from In-context CSI reveal that severity ranking among the seven (7) identifiable strategies during COVID-19 lockdown period, which include low severity and high severity. Under low severity, we have borrowing money to purchase food or purchasing food on credit, depending on government palliatives or family and friends for food, eating less preferred foodstuff and infants eating first. Items under high severity include selling assets/livestock or business capital to eat, reduction in consumption of food and skipping meals. Average frequency or the average number of days households used to depend on a strategy was also identified. Indication revealed that the highest average days is four (4) days and the least days is three (3) as shown in Table 8. Table 8 further reveals the average weighted scores for each of the adaptable strategies in the study area. Selling



assets/livestock or using existing business capital to feed, reduction in consumption of food in the household and skipping meals have the highest weighted scores of 16, 12 and 16, respectively. While others have less weighted scores and therefore are considered as less severe coping strategies. Average coping strategy weighted score in the study area is 61, which indicates that food security is a serious challenge in the area, especially regarding the COVID-19 total lockdown.

However, it should be noted that there is no one strategy adopted by households, but rather various strategies to cope with COVID-19 lockdown. Furthermore, responses from the heads of the households indicated that government palliatives of any form had not reached the poorest. In some cases wealthy individuals in the communities have impacted positively through government, but the relief materials are yet to reach the households after data collection, but this can be linked to the issue of corruptions that mere the whole exercise.

Further disaggregating the CSI into the regional area as revealed in Table 9 indicates that average CSI in Kano north, Kano Metropolitan and Kano south is estimated to be 61, 56 and 63. This showed that Kano south is in dire need of assistance in terms of food because it has the highest tendency of having a large number of food-insecure households. The findings are also in line with results from FSI, which reveals that the food security index in Table8: Average Household Frequency, Severity Ranking and Average Scores in Kano, Nigeria

Description	Average Days	Severity Ranking	Average Score
Borrowing/Purchasing Food on Loan/Credit	3	1	3
Selling Assets/livestock/Using Business Capital	4	4	16
Reduction in Food Consumption	4	3	12
Depending on Government Palliatives/Assistance	4	2	8
Eating Less Preferred Food	3	1	3
Skipping Meals	4	4	16
Children Eating First	3	1	3
<b>Average Scores (Average CSI)</b>			<b>61</b>

Source: Field Survey, 2020

Kano north is 0.41, with about 69 per cent of the AE of 1,217 individual food insecure. Furthermore, Table 9 shows that high severe coping strategies in both Kano north and south are selling assets/livestock or using business capital to purchase food, reduction in consumption of foodstuff and skipping meals. While in Kano Metropolitan, high coping strategies include selling assets/livestock or using business capital to purchase food and skipping meals.





Table9: Average Regional Household Frequency, Severity Ranking and Average Scores in Kano, Nigeria

Description	R	KN		KM		KS	
		AD	S	AD	S	AD	S
Borrowing/Purchasing Food on Loan/Credit	1	3	3	3	3	4	4
Selling Assets/livestock/Using Business Capital	4	4	16	4	16	4	16
Reduction in Food Consumption	3	4	12	3	9	4	12
Depending on Government Palliatives/Assistance	2	4	8	3	6	4	8
Eating Less Preferred Food	1	3	3	3	3	3	3
Skipping Meals	4	4	16	4	16	4	16
Children Eating First	1	3	3	3	3	4	4
Average Scores (Average CSI)			61		56		62

Note: KN= Kano North; KM= Kano Metropolitan; Kano South; R=Ranking; AD= Average Days; and S= Severity

Source: Survey, 2020

## 5. Conclusions and Recommendations

The study examined the impact of COVID-19 against household food security and coping strategies adopted during the lockdown period in Kano State, especially the government palliatives. Findings from the study reveal that majority or about 54 per cent of households in Kano are food insecure. This is relatively different from the previous results of food security status in Kano, an indication that COVID-19 has a severe impact on the food security status of households in Kano. In-context CSI also shows an increase average index in Kano as against the previous studies. The results from FSI and CSI all indicate that Kano south has the highest food insecure households and in dire need of assistance in terms of government palliative.

Findings from the socio-economic description of the households reveal that 85 per cent and 89 per cent are male and married households, respectively. The average age among the households is 41 years, while the average household size is estimated to be ten (10) individuals per household. Finding also shows that the impact of COVID-19 has started manifesting on the private sector employment; it also affects both the monthly expenditure and income of the households in the study area. About 60 per cent of the households are farming households. However, evidence has shown some form of diversification among the households, agricultural outputs for the current farming activities will also be impacted by the COVID-19 especially if the existing measure of lockdown continues. There are also the challenges of few workers in the farm, lack of market for raw materials to be used in the farmers.

This study, therefore, recommends the following for the policymakers in Kano. Firstly, it's imperative to accept the new fact concerning the new norm in terms of living with COVID-19. The government needs to come up with smart measures in fighting the virus. Total lockdown in Kano will only deteriorate the level of food security status among household heads; especially those involved in private businesses who need to go out before putting



food on the table and farming households that need to go to farms for planting and other agricultural activities.

Lockdown, especially to the farmers in Kano, will seriously affect the outcome of the present agricultural activities for the year, which will subsequently affect the food security status of households and the State in general. Kano is identified as the food basket of the Nation. The government should either come up with some specific days that will allow the farmers to go to farms and enable other services that have a direct link with farming activities to operate under strict compliance with social distances and use of face mask. In so doing that, agricultural activities will not be affected, which will also allow household heads to have available food for households. There is also the need for the government to encourage the production of food crops against cash crops among farming households.

The effort put in place by the government and wealthy private individuals in the State is considered minimal. While the government always insist on lack of funds due to low revenues and grants from the Federal Government, much is expected on the part of the State government. The contributions obtained from the private business individuals in the State are also meagre considering the number of vulnerable individuals in the State, especially in Kano south. Therefore, there is the need for more wealthy individuals to step up and contribute more during this pandemic.

Government needs to put in place measures that can keep track of the palliative and contributions sourced for the most vulnerable in Kano for accountability, especially as evidence has shown that the materials and food items in most cases ended up in the hand of the politicians and their party members. Therefore, the government needs to completely take the issue of corruption in the system with all the seriousness it deserves.

### **References**

- AUC (2020), *Impact of the Coronavirus (COVID 19) on the African Economy*, African Union Commission, Addis-Ababa.
- De Sousa, A. (2020). Tracking COVID-19. *Bloomberg News*.
- Deaton, B. J., & Deaton, B. J. (2020). Food security and Canada's agricultural system challenged by COVID- 19. *Canadian Journal of Agricultural Economics* 2020, 1-7
- Devereux, S. (1993). Goats before ploughs: Dilemmas of household response sequencing during food shortages. *IDS bulletin*, 24(4), 52-59.
- Evelyn, K. (2020). It's a racial justice issue": Black Americans are dying in greater numbers from Covid-19. *The Guardian*.
- FAO, IFAD, UNICEF, WFP, & WHO. (2019). The state of food security and nutrition in the world (SOFI) 2019. Safeguarding against economic slowdowns and downturns. Rome: FAO.
- Food and Agriculture Organisation of the United Nations. (2008). *Guidelines for Measuring Household and Individual Dietary Diversity*. Version 4, FAO/ Nutrition and Consumer Protection Division. FAO, EC/FAO & FANTA project Rome, Italy



- Food and Nutrition Technical Assistance (FANTA) (2003). *Food access indicator review*. Food and Nutrition Technical Assistance (FANTA) Project, Academy for Educational Development (AED), Washington, DC.
- Galanakis, C. M. (2020). The Food Systems in the Era of the Coronavirus (COVID-19) Pandemic Crisis. *Foods*, 9(4), 523.
- Galea, S. (2020). The poor and marginalized will be the hardest hit by coronavirus. *Scientific American Blogs*.
- Gilbert, M., Pullano, G., Pinotti, F., Valdano, E., Poletto, C., Boëlle, P. Y., ... & Gutierrez, B. (2020). Preparedness and vulnerability of African countries against importations of COVID-19: a modelling study. *The Lancet*, 395(10227), 871-877.
- Hossain, S. T. (2020). Impacts of COVID-19 on the Agri-food Sector: Food Security Policies of Asian Productivity Organisation Members. *Journal of Agricultural Sciences–Sri Lanka*, 15(2).
- Kano State (2020). Kano mass deaths: Only 15.9 percent relates to Covid-19, Counters FG report. Retrieved from [www.kanostate.gov.ng/?q=kano-mass-deaths-only-159-percent-relates-covid-19-counters-fg](http://www.kanostate.gov.ng/?q=kano-mass-deaths-only-159-percent-relates-covid-19-counters-fg)
- Maxwell, D., & Caldwell, R. (2008). *The coping strategies index: Field methods manual*. Atlanta, GA: CARE.
- Maxwell, D., Ahiadeke, C., Levin, C., Armar-Klemesu, M., Zakariah, S., & Lamptey, G. M. (1999). Alternative food security indicators: revisiting the frequency and severity of coping strategies. *Food policy*, 24(4), 411-429.
- Maxwell, S. (1996). Food security: a post-modern perspective. *Food policy*, 21(2), 155-170.
- Mukhtar, M. (2019a). Dietary diversity and food insecurity coping strategies among farming households in Kano, Nigeria. *Lapai International Journal of management and Social Sciences* 11(2), 83-96.
- Mukhtar, M. (2019b). Factors influencing food security situation among farming household heads in Niger state, Nigeria. *Lapai Journal of Economics* 3(2), 12-27.
- Mukhtar, M. (2019c). Food insecurity and coping strategies among rural households in Niger state, Nigeria. *Lapai Journal of Economics* 3(1) 92-107.
- Mukhtar, M. (2019d). Impacts of Boko Haram insurgency on households' food security status in Kano metropolitan, Nigeria. In *3rd USM-International Conference on Social Sciences (USM) – ICOSS (p.52)*.
- Mukhtar, M. (2020a). Investigating dietary diversity among households in Kano, Nigeria. *Lapai International Journal of management and Social Sciences*. 12(1), Page 140-149.
- Mukhtar, M. (2020b). Impact of Boko-Haram conflict on food security status among the households in Kano Metropolis. *Lapai Journal of Economics* 10(1), 134-147.
- Mukhtar, M., Kamaruddin, R. B., & Applanaidu, S. (2018a): Factors affecting rural farming household's food security status in Kano, Nigeria. *International Journal of Management Research & Review*. 8(9), 1-19.
- Mukhtar, M., Kamaruddin, R. B., & Applanaidu, S. (2018b): Assessing the food security



- determinants among rural households in Kano, Nigeria. *Journal of Agricultural Economics and Rural Development*. 4(2), 494-500
- National Bureau of Statistics [NBS], (2020). *COVID-19 national longitudinal phone survey (COVID-19 NLPS) 2020, Baseline*. Retrieved from [www.microdata.worldbank.org](http://www.microdata.worldbank.org)
- National Bureau of Statistics [NBS]. (2012). The Presidency gross domestic product for Nigeria. Abuja, Nigeria.
- National Bureau of Statistics. (2016). NBS comprehensive data. Retrieved from <https://knoema.com/atlas/sources/National-Bureau-of-Statistics-Nigeria/>
- National Population Commission (2006). Report of Nigeria's National Population Commission on the 2006 Census. (2007). *Population and Development Review*, 33(1), 206-210.
- National Population Commission. (2016). Population statistics, charts and location.
- NDCD (2020). *COVID-19 case update in Nigeria 16<sup>th</sup> June 2020*. Retrieved from <https://t.co/wou7Q1PflO>
- Nouh, F., Elfagi, S., & Omar, M. (2020). Corona virus: the paradox between food insecurity and weight gain. *EAS Journal of Nutrition and Food Sciences*, 2(2), 39-43.
- OECD (2020). *COVID-19 and Africa: Socio-economic implications and policy responses*. Retrieved from <http://www.oecd.org/coronavirus/policy-responses/covid-19-and-africa-socio-economic-implications-and-policy-responses-96e1b282/>
- The World Bank, (2020). The Impact of Coronavirus on global food security. URL: <https://twitter.com/WorldBank/status/1252613064689504256?s=20>
- UNECA (2020). *Africa will lose US\$65 billions to full lockdown*. <https://www.today.ng/news/africa/uneca-africa-lose-65-billion-full-lockdown-297107>
- Vos, R., W. Martin, and D. Laborde (2020a). 'As COVID-19 spreads, no major concern for global food security yet'. IFPRI Blog. Downloaded at: <http://www.ifpri.org/blog/covid-19-spreads-no-major-concern-global-food-security-yet>.
- World Bank (2020a), *The impact of COVID-19 (Coronavirus) on global poverty: Why Sub-Saharan Africa might be the region hardest hit*, <https://blogs.worldbank.org/opendata/impact-covid-19-coronavirus-global-poverty-why-sub-saharan-africa-might-be-region-hardest/>
- World Bank (2020b) 'An Analysis of Issues Shaping Africa's Economic Future'. *Africa's Pulse*, 21 Spring. <https://openknowledge.worldbank.org/handle/10986/33541>.
- World Bank (2020c). *World Bank Group: 100 countries get support in response to COVID-19 (Coronavirus)*. Retrieved from <https://www.worldbank.org/en/news/press-release/2020/05/19/world-bank-group-100-countries-get-support-in-response-to-covid-19-coronavirus>
- World Health Organisation (2020). Coronavirus disease 2019 (COVID\_19) situation report – 27. URL <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200216-sitrep-27-covid-19.pdf>.
- Zhu, N., Zhang, D., Wang, W., Li, X., Yang, B., Song, J., ... & Niu, P. (2020). A novel coronavirus from patients with pneumonia in China, 2019. *New England Journal of*



*Medicine* (1-14).

Zurayk, R. (2020). Pandemic and food security. *Journal of Agriculture, Food Systems, and Community Development*, 9(3), 1-5.



## **ROLE OF LIBRARIANS IN INFORMATION MANAGEMENT AND DISSEMINATION**

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### **Abstract**

*The role of librarians in information management and dissemination is the primary role in librarianship and the information cycle as a whole because information management (IM) is all about the control of how information is created, acquired, organised, stored, distributed, and utilised as a means of promoting efficient and effective information access, processing, and use by people and organisations or libraries. Information dissemination is also part of information management. However, it is specific to the provision of information to end users for accessibility. This paper therefore highlights the role of librarians in information management and dissemination with a view of bringing to bare, the fundamental roles of librarians in librarianship. In addition, the transformations necessitated in the management and dissemination of information overtime; due to literature explosion and the corresponding proliferation of information technology in the library thereby changing management and dissemination of information from traditional to electronic, digital and hybrid methods in libraries. With this perspective, there arises the need to equip today's librarians with ICT skills to tackle the evolving challenges in the field of library and information science to remain relevant in playing the major roles of a librarian, especially in information management and dissemination.*

**Keywords:** Librarians, Information Management, Information Dissemination, Library.

### **1. Introduction**

Traditionally, libraries were known to be physical buildings for housing collections of books, journals, manuscripts and other recorded information (Ogunsola, 2011). In today's world, we see a greater change in the way libraries are operated. Through the use of technology, the library walls have been broken. Users are now able to access information remotely through digital and/ virtual libraries. Terminologies associated with 21st century libraries include; automated library, digital library, hybrid library, virtual library and library 2.0 (Halder, 2009).

Some of the principles guiding 21st century libraries are: round the clock accessibility, absence of barriers, libraries are now more active than passive, flexibility and best of breed systems in library services (Ramos, 2017). 21st century libraries identify with library information management systems, cloud information management systems, 24/7 reference services, e-books/content and Online Public Access Catalogue (OPACS) (Chutia, 2015) as an organ in the information cycle. In the 21st century library, there is more life and



energetic atmosphere than the traditional libraries. Many libraries are renovating their library spaces and environments around the concept of 'learning commons' (Litzenberger, 2016). It is the norm for a 21st century library to have wireless connectivity and outlet access. Some libraries even have extended services such as coffee café because 21st century information seekers view the library as their second home due to conducive environments and services offered in the digital age.

For example, traditionally, librarians were known to be responsible for shelving books, they were generally associated with the collection of books. The roles of librarians are unremittingly evolving to suit the current social needs and technological developments. The 21st century libraries operate in the digital world; therefore librarians are required to intensify their skills to remain relevant in their profession. The role of the library in information management and dissemination has now expanded to include knowledge workers/brokers, digital curators, end user trainer/educator, eb organiser and designer, Interface designer, change agents, knowledge manager/knowledge broker, knowledge mapping skills, researcher, website builder and publisher, content manager, consortia manager; strategic planning, systems development and project management, service orientation, marketing and presentation skills, technical, managerial and information technology skills, advocate (act as a lawyer e.g. concerning issues such as copyright law and intellectual property rights), consultant, collaborator, mentor, leader, sifter of information resources, financial manager, subject experts and lastly, policy makers (Shonle, 2017; Halder, 2009; Jain, 2013; Khan & Bhatti, 2012; Melchionda, 2007; Rao & Babu, 2001; Uzuegbu & McAlbert, 2012; Verma, 2015).

Information management (IM) is the collection and management of information from one or more sources and the distribution of that information to one or more audiences. This sometimes involves those who have a stake in or a right to that information. Management means the organisation of and control over the structure, processing, and delivery of information. The librarian's role in ensuring this is critical to the existence and continuity of the library. Hence, the lifecycle of a library revolves around information management.

Information management therefore, has been the issue of concern to library & information professionals all over the world. People have adopted various approaches to information management and there is often controversy and lack of proper orientation about it. Information management systems offer a framework within which to accomplish the management of data and information resources in an orderly and systematic fashion. Information management systems include all methods and procedures for collecting and processing information on a particular resource and formatting that data in a manner which is useful for the users. The libraries are nowadays more serious towards the management of information resource than in the earlier past. The factors that has greatly influenced the information management are: information explosion, proliferation of documents and extensive use of information handling technologies. The books, journals, newspapers, research reports all have contributed to the flow of information. This has brought some new challenges like economic storage, efficient retrieval and effective use of information. The





academic libraries in particular are experiencing difficulties in managing information as they are required to meet the needs of people of varying degree of specialization and interests (Prasad, 2018).

Information management in the digital era has struggled to curtail these challenges through increasing digital storage and the World Wide Web, information retrieval systems, databases, electronic, digital and hybrid libraries and knowledge management systems (Meola, 2016).

The keywords: “Knowledge management”, “information management” and “information dissemination” are familiar terms used in the information world. The management of information has long been regarded as the domain of librarians and libraries. Librarians and information professionals are trained to be experts in information searching, selecting, acquiring, organising, preserving, repackaging, disseminating, and serving. However, professionals in information technology and systems have also regarded information management as their domain because of the recent advances in information technology and systems which drive and underpin information management. One of the clearest evidences of this is that the positions of “Chief Information Officer” (CIO) in many organisations are generally held by information technologists instead of librarians. In fact, most of the work of CIOs has to do with developing and managing the IT infrastructure and systems, not the managing of information per se. (Lee, 2015)

With the growing interest in knowledge management, many questions have been raised in the minds of librarians regarding: the difference between information and knowledge; between information management and knowledge management; who should be in charge of information and knowledge management; would librarians and information professionals with appropriate education and training in library and information science be most suitable for the position of “Chief Knowledge Officer” (CKO) in their organisations; and what libraries can do in implementing knowledge management.

## **2. Literature Review**

### *Theoretical Framework*

Choo (2008) defines "information management as a cycle of processes that support the organisation's learning activities: identifying information needs, acquiring information, organising and storing information, developing information products and services, distributing information, and using information". Radon (2016) pinpoints the importance of Information Management in Libraries even in the modern ICT environment as “the new technologies of the Internet and beyond will require more expertise in information management”. Rowley (2018) proposes four different levels of information management: information retrieval, information systems, information contexts, and information environments. Effective information management, according to him, needs to address issues at all of these levels.



Hence information management plays an important role in this context in order to manage information resources and services in the library. Information Management skills definitely help the library professionals in facing these revolution and challenges. Library professionals are the most valuable information asset in Libraries. Library patrons expect from LIS professionals to help in accessing and retrieving the relevant information at the correct time and managing information. They are involved in managing Information and information management work in libraries. These professionals who carry out the information management responsibilities require specific knowledge, skills and attributes related to managing information, library services, archiving, data management, content management, information access and retrieval in the context of Digital Information product and services.

#### *Skills for managing Digital Information*

The Library professionals who work in the hybrid libraries are required to have knowledge, skills and attitudes necessary to create, store, analyse, organise, retrieve, and disseminate print and digital information. The new digital information environment requires librarians to acquire new skills like web 2.0 technologies, internet, ICT and soft information management skill to manage a vast amount of digital information and sustain the Digital information and services over a long period of time.

Library professionals of this information age must also realize the importance of the new knowledge and skills and update them for making the library sustainable and managing the flood of information effectively. Importance of this concept was highly revealed by Bhaskar, and Martens (2008) that “The new librarian combines a collaborative attitude, social awareness, creativity and cultural knowledge with management skills, knowledge of digital developments and the ability to enter into alliances. The librarian of the future is able to innovate the discipline based on content. Not single-handedly, but together with colleagues, other libraries and social partners. This requires talent as well as a large measure of professionalism and expertise” (Morgan, 2014).

Ezema and Ugwu, (2014) Identified interpersonal, leadership & management and information technology skills are the main skills required by librarians for the emerging digital library environment. The study also found that the librarians’ skills in interpersonal, leadership and management are higher than in information technology. Chowdhury (2013) suggests the following measure in-order to be a successful and sustainable digital information services to the libraries: Accommodate new and emerging user information behavior; Improve digital and information literacy, Improve web accessibility to accommodate all kinds of users, especially those that have special needs, Accommodate new and emerging social networking and the social informatics models in specific areas such as digital education, digital health, digital culture, and so on.

The role of digital librarian in the management of digital information resources has a remarkable impact in today’s library. Digital information system management refers to the overall competencies (knowledge, know-how, skills and attitudes) necessary to create,



store, analyse, organise, retrieve and disseminate digital information (text, images, sounds) in digital libraries or any type of information. In the work of Sreenivasulu (2018), to describe the roles of the digital librarian, there is usually a focus on the following:

**Guardian of information super highway (ISH):** The information super highway is a vision or a metaphor. It envisions a fusion of the two-way wired and wireless capabilities of telephones and networked computers with a cable TV's capacity to transmit hundreds of programs. Services would be delivered by telecommunications networks, cable TV networks, and the Internet and mobile communications. Infrastructure that provides bandwidth-on-demand and information-on-demand services are called information superhighway. There are two types of information services such as public (free) services and commercial services. The use of existing telephone, fax, and analogue TV broadcast services will be supported in the initial information superhighway. In addition, new services such as videophone, multimedia electronic messaging, digital TV/HDTV broadcast and movie and video-on-demand service, will be provided also. **Guardian of the global digital library/ the universal digital library:** The digital library is really a transitory phase towards the universal digital library, a vast distributed information and active repository accessible from anywhere with increasing improved indexing, extraction and summarization techniques. It will be a library without walls or national boundaries.

**Digital librarian acts as symbiotic human-machine guru:** The digital librarian acts as an intermediary in the task of massive digitisation of information, its storage, dissemination, managing the archive, and making available digitised networked information to the end users. Digital librarians and computers depend on each other for processing and dissemination of digital information and both are interrelated. **Navigation, browsing and filtering:** The navigation of the future would tend to integrate with the human-assisted information retrieval from the networked universe and would support rapid information navigation and precision retrieval. The digital librarian is an expert in navigating, browsing and filtering, digital reference services and electronic information services from the digital information sources.

**Multimedia search and indexing:** A multimedia digital library requires not just standard indexing and retrieval, but also sub-document indexing and summarization techniques - more than that of paper documents. **Knowledge and data mining:** The digital librarian will require a limited knowledge of data mining and discovery of knowledge from digital libraries to extract unmet information needs of users. For this purpose, unsupervised learning techniques such as clustering, and composite term discovery techniques, etc., are useful. **Search and retrieval co-ordination:** It requires comprehensive knowledge of the retrieval engines and indexing structure so that the digital librarian can achieve the goal of creating information queries with respect to the search system.

**Digital librarian's interface functions and roles in the management of DIS:** A fundamental role of a Digital Librarian in digital libraries is to act as an intermediary who brings together users and information. Digital library access tools are the right set of tools used in



novel ways to tackle a plethora of challenges and opportunities for information access technology and faster access. Digital information access: There is a variety of information retrieval techniques, including metadata searching, full-text document searching. In knowing what can or cannot be retrieved from the digital library information sources, the digital librarian acts as an expert in the acquisition of digital information.

Accessing and retrieving digital information through digital library access tools: The method used to store, find and retrieve digital information from DIS is called the access method. The technology used to access information digitally provides "navigation paths or digital library access tools" through the digital information system (DIS). Mobile information access, a vision of tomorrow: The ability to access information on demand at any location confers competitive advantage on individuals in an increasingly mobile world. The data from shared file systems; relational databases, object-oriented databases, and other repositories must be accessible to programs running on mobile computers (Sreenivasulu, 2018).

Different from the traditional library, a fundamental role of a Digital Librarian in digital libraries is to act as an intermediary who brings together users and information in digital format. Digital library access tools are the right set of tools used in novel ways to tackle a plethora of challenges and opportunities for information access technology and faster access (Kikuchi et al., 2016 in...). There is a variety of information retrieval techniques, including metadata searching, full-text document searching. In knowing what can or cannot be retrieved from the digital library information sources, the digital librarian acts as an expert in the acquisition of digital information while the dissemination is static and user-oriented. With that, a website can be accessed for information of user's needs. Sometimes, a search may be conducted to retrieve information from databases or digital libraries.

### **3. Information Dissemination**

To disseminate (from Latin disseminare "scattering seeds"), in the field of communication, means to broadcast a message to the public without direct feedback from the audience. The key to effective dissemination is to match the means to the message and needs of the audience. Information dissemination in context to librarianship beside the traditional means that bring users in contact with information, according to Virginia (2018), includes and not limited to press releases, media archives, newsletters, public relations materials, web pages and the social media.

There are services provided by the library to the users often. Those services may include instruction on how to access and use library materials at ease. The Library services / facilities that may be accessed include circulation service, reference service, online reservation of books, recommendation of library material, current awareness service, inter library loan service, photocopying/printing service, orientation and information sessions, selective dissemination of information, audio visual service and multimedia section.

Library services that ensure dissemination of information included book displays at the entrance of the library, catalogues and publication but now includes CAS, SDI, new



arrival's information, mobile information services, email, text message and the use of social media platform. Services provided by the library to online students can include instruction on how to access and use library materials; reference services to provide quick and in-depth answers to student questions; and materials delivery services that provide students with access to library materials online or items delivered to students' homes.

#### **4. Conclusion**

The roles of librarians as information managers and information disseminators are rapidly changing thereby necessitating a shift from traditional library to electronic library for the librarians to stay afloat in the information cycle favorably. For that reason, information management should not be restricted to the traditional library. There is increasing need to include knowledge of information management of electronic resources in other to meet arising challenges in the information cycle. Such knowledge and expertise will translate into the effective management and dissemination of information resources and services in a hybrid library that is today's trend.

The author therefore concludes that the role of librarians in information management and dissemination has expanded to accommodate electronic information along with the traditional legacy method. Hence, the need for training and retraining of the 21<sup>st</sup> century librarian to stay afloat of the rising challenges in effectively carrying out his duties.

#### **References**

- American Library Association (2012). Task force on the environment. <http://www.ala.org/ala/mgrps/rts/srrt/tfoe/lbsec/librariesbuildsustainablecommunitiesthree.cfm>
- Bhaskar, P. & Martens, R. (2008). Increasing technological innovation competence through intraorganisational communication networks.- In: Competence building and leveraging in interorganisational relations. Amsterdam: Elsevier, 2008: pp 141-165
- Choo, C.W. (1998). Information management for the intelligent organisations: the art of scanning the environment. Medford, NJ: Information Today, Inc.
- Chowdhury, G. (2013). Sustainability of digital information services. Journal of Documentation, 69(5), 602-622.
- Chutia, U. P. (2015). Academic libraries of 21st century: Challenges for librarian. Knowledge Librarian (e-journal), 2(4). Retrieved March 17, 2017, from <http://www.klibjlis.com/2.4.15.pdf>
- Echezona, R.I. (2007). The Role of Libraries in Information Dissemination for Conflict Resolution, Peace Promotion and Reconciliation. Afr. J. Lib & Inf. Sc. Vol.17, No. 2 (2007)153-162
- Ezema, Ifeanyi J. Ugwuanyi, C.F and Ugwu, Cyprian I (2014). Skills requirements of academic librarians for the digital library environment in Nigeria: a case of university of Nigeria, Nsukka. International Journal of Library and Information Science. 3(1), : 17- 31
- Halder, S. N. (2009). Multimodal roles of library and information science professionals in present era. International Journal of Library and Information Science, 1(6), 092-099.



- Halder, S. N. (2009). Multimodal roles of library and information science professionals in present era. *International Journal of Library and Information Science*, 1(6), 092-099.
- Jain, P. (2013). A paradigm shift in the 21st century academic libraries and librarians: prospectus and opportunities. *European Journal of Academic Research*, 1(3), 133-147.
- Khan, S. A., & Bhatti, R. (2012). A review of problems and challenges of library professionals in developing countries including Pakistan. *Library Philosophy and Practice* (e-journal). Retrieved March 17, 2017, from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1831&context=libphilprac>
- Laloo, B. T (2002) *Information Needs, Information Seeking Behaviour and Users*. New Delhi: ESS Publication.pp.3-5
- Lee, Hwa-Wei (2015). *Knowledge Management and the Role of Libraries*. [hlee@lc.gov](mailto:hlee@lc.gov). Originally published on the 3rd China-US Library Conference website (<http://www.nlc.gov.cn/culc/en/index.htm>).
- Litzenberger, A. (2016). Characteristics of the 21st-century library. Retrieved March 17, 2017, from EAB: <https://www.eab.com/research-and-insights/facilities-forum/expertinsights/2016/characteristics-21st-century-library>
- Litzenberger, A. (2016). Characteristics of the 21st-century library. Retrieved March 17, 2017, from EAB: <https://www.eab.com/research-and-insights/facilities-forum/expertinsights/2016/characteristics-21st-century-library>
- Liu, Y. Q., & Briggs, S. (2015). A Library in the palm of your hand: Mobile services in top 100 University libraries. *Information Technology and Libraries*, 133-148. doi:10.6017/ital.v34i2.5650
- McGrath, F. (2016). 87% of internet users now have a smartphone. Retrieved January 23, 2017, from GlobalWebIndex: <https://www.globalwebindex.net/blog/87-of-internet-users-nowhave-a-smartphone>
- Melchionda, M. G. (2007). Librarians in the age of the internet: their attitudes and roles: A literature review. *New Library World*, 108(3-4), 123-140.
- Melchionda, M. G. (2007). Librarians in the age of the internet: their attitudes and roles: A literature review. *New Library World*, 108(3-4), 123-140.
- Meola, A. (2016). What is the Internet of Things (IoT)? Retrieved March 17, 2017, from Businessinsider.com: <http://www.businessinsider.com/what-is-the-internet-of-thingsdefinition-2016-8>
- Morgan, J. (2014). A Simple Explanation Of 'The Internet Of Things'. Retrieved March 17, 2017, from Forbes.com: <https://www.forbes.com/sites/jacobmorgan/2014/05/13/simpleexplanation-internet-things-that-anyone-can-understand/#7dfae2861d09>
- Nalluri, S. R., & Gaddam, B. (2016). Mobile library services and technologies: A study. *International Journal of Research in Library Science*, 2(2), 59-66.
- Ogunsola, L. A. (2011). Libraries as tools for capacity building in developing countries. *Library Philosophy and Practice*. Retrieved March 21, 2017, from <http://unllib.unl.edu/LPP/ogunsola.htm>



- Ogunsola, L. A. (2011). The next step in librarianship: Is the traditional library dead? Library Philosophy and Practice (e-journal). Retrieved March 18, 2017, from <http://unllib.unl.edu/LPP/ogunsola2.htm>
- Prasad, H.N (2018). CALIBER.98, 4-5 March 1998, Bhubaneswar, pp.9-13 \!:) 1NFLIBNET Centre, Ahmedabad. <https://ir.inflibnet.ac.in/bitstream/1944/2224/1/Information%20Management%20in%20Academic%20Libraries%20-%20Some%20Observations.pdf>
- Radon, Rosemary (1996), "What Information? What Dynamics," Information Dynamics. Edited by Rosemary Radon. Cambridge, Eng. : Gower.
- Ramos, M. M. (2007). The Role of Librarians in the 21st Century. Ppaper presented at the 35th ALAP Anniversary forum. Retrieved March 17, 2017, from <https://www.slideshare.net/plaistr/c/the-role-of-librarians-in-the-21st-century>
- Rao, K. N., & Babu, K. H. (2001). Role of librarian in internet and World Wide Web environment. Informing Science, 4(1).
- Shonhe, Liah, (2017). A Literature Review of Information Dissemination Techniques in the 21st Century Era (2017).Library Philosophy and Practice (e-journal). 1731. <https://digitalcommons.unl.edu/libphilprac/1731>
- Sreenivasulu, V. (2018). The role of a digital librarian in the management of digital information systems (DIS). Proceedings of Society for Information Science (SIS). Volume 18 . Number 1 . 2000 . 12-20
- Uzuegbu, C. P., & McAlbert, F. U. (2012). Digital librarians and the challenges of Open Access to knowledge: The Michael Okpara University of Agriculture (MOUAU) library experience. Library Philosophy and Practice (e-journal). Retrieved March 18, 2017, from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1814&context=libphilprac>
- Verma, N. K., & Verma, M. K. (2014). Application of mobile technology in the Libraries. In M. Singh, P. K. Singh, & A. Kumar (Ed.), Libraries: Towards digital paradigm (pp. 32-38). Uttar Pradesh: Bharati Publishers & Distributers
- Virginia Smith (2012). Library and Information Services in Astronomy IV July 2-5, 2002, Prague, Czech Republic B. Corbin, E. Bryson, and M. Wolf (eds). Gemini Observatory, 670 N. A'ohoku Place, Hilo, HI 96720, USA [vsmith@gemini.edu](mailto:vsmith@gemini.edu)
- What is Information Management?. (2020). Retrieved 21 December 2020, from <https://www.aiim.org/What-is-Information-Management#>





DISCOURSE ON THE CHALLENGES AND PROSPECTS OF BROADCAST  
MEDIA REGULATION IN A DEMOCRATIC DISPENSATION: THE NIGERIAN  
EXPERIENCE

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**Abstract**

*Regulating the broadcast industry is not only essential but a necessity to guarantee progress in developing democracies. This work examines the challenges and opportunities of regulating broadcast media in a democracy. It emphasises the necessity to regulate the broadcast media in Nigeria's fledgling democracy. The work highlights the regulation of broadcasting in other parts of Africa and Nigeria in particular. Some associated problems identified include poor awareness of the NBC code among media practitioners and inadequate manpower to monitor the broadcast industry. Prospect includes the potency to effectively sustain the democratic system as a culture. The work recommends among others the need for improved funding and collaboration between the NBC and broadcast unions to intensify awareness on the content of the NBC code among media practitioners*

**Keywords:** Media, Regulation, Problems, Prospect, Broadcasting, code.

**1. Introduction**

Broadcast media are basic channels of information, education as well as entertainment for most people in the world. The high rate of illiteracy in developing nations along with the difficulty of distributing newspapers among the growing poverty ridden population provide a fertile ground for the broadcast media to remain the only media accessible to majority of people. For the poor, the daily purchase of newspapers and magazines may be very expensive, and some people simply find it easier and more enjoyable to watch or listen to the news than to read it. Furthermore, the broadcast media play a very important role as cheaper and more accessible channels of entertainment to a growing audience population (Mendel *et al*, 2002). Broadcasting thus resonates on every spectrum of life. Due to its delicate, spontaneous and ubiquitous nature, it demonstrates an awesome power in shaping societies economically, socially, culturally, politically etc (Bako, 2002).

From the beginning of broadcasting, the government realised that, although broadcasting was too important to be left in the hands of individuals or commercial company, but,



government later realised that it was inappropriate in a democracy for broadcasting to be under direct state control. There was a need to maintain some kind of regulation on who provides what types of broadcast service (O'Sullivan, 1994). Many countries have therefore devised the means to maintain some form of equilibrium by establishing regulatory organs to monitor and regulate the broadcast industry. Bako (2002) asserts that the regulation of the industry in Nigeria was inevitable to manage issues relating to the family values, democracy, politics, crisis and the influence of foreign broadcasting. Since the inception of broadcasting in Nigeria, regulation can be seen as one of the topical issues of discussion and of interest to researchers and policy makers. The subject of media regulation has become even more important in the Nigerian context since the deregulation of the broadcast media in 1992. Following this, the industry witnessed Federal Government establishment of the National Broadcasting Commission (NBC) to regulate broadcasting in Nigeria.

The establishment of NBC has therefore erased the fear and trepidations by previous governments and scepticism from broadcasters. Since then NBC has taken steps to regulate the activities of stations in Nigeria. Its major duties, according to the NBC Code (2010), among others are: regulating and controlling the broadcast media; recommending applications through the minister to the President for the grant of radio and television licenses; receiving, considering and investigating complaint from individuals and corporate bodies regarding broadcast contents etc. The NBC, in fulfilling its mandate, produced what it calls a National Broadcasting Code which defines the standards, professional and ethical responsibilities of broadcast media. The code is an addition to the extent of the law that established the Commission. The commission therefore regulates the operation of broadcast media in democratic setting.

The media and Democracy in Nigeria, no doubt share a symbiotic relationship. On one hand, democracy provides a fertile ground for free market enterprise, which encourages free establishment and operation of the media and other businesses. On the other hand, the media provide the arrow head for the attainment and sustenance of democracy in Nigeria. According to Pate (2011), the existence of a vibrant media system is quite fundamental to the enthronement and sustenance of a credible democratic process. Buttressing this, Barret (2001) stresses that an effective democratic system requires a media system which can complement it as a platform for generating discussion of issues of public concern in a way that favours various interests.

To this end, the activities of the Nigerian mass media in national development at various stages of our history have been well documented in the works of Omu, 1978; Ogbondah, 1994; Thompson, 1997; Yusuf, 2001; Akinfeleye and Okoye, 2003; Nwosu, 2003 and Oso and Pate, 2010 etc.

However, the regulation of the media especially the broadcast media remains an important issue which threatens the symbiosis between the media and democracy in Nigeria. The most recent reference is the 2015 presidential election, where the major opposition party,



APC campaign organisation accused the NBC and APCON of promoting election violence and hate messages. This was as a result of the inability of NBC to sanction erring radio and television stations, industry players and groups who continuously breached extant laws and regulations governing activities of the agencies. They blamed NBC for its inaction against some stations when they aired PDP sponsored hate documentary against General Muhammadu Buhari, the APC presidential candidate. The action violated section 3.1.2 of the NBC code (The Nation Newspaper, 2015). This paper aims to analyse some of the challenges and opportunities available in regulation of the broadcast media in a democracy, taking Nigeria as a study.

## **2. Literature Review**

### *Theoretical Framework*

This work is located within the Social Responsibility theory, one of the four press theories propounded by Siebert, Peterson and Schramm in 1956 (Aina, 2003). The theory strives to reconcile the independence of the mass media with their obligations to the society. According to Rivers, Peterson and Jenson (1971), social responsibility theory rests on a proposition that whoever enjoys freedom has certain obligations to the society. The mass media are guaranteed freedom by the constitution and therefore obliged to perform certain essential functions.

The theory thus has three divergent principles to reconcile. One is that of individual freedom and choice; media freedom and the media obligation to the society. To resolve these potential inconsistencies, the theory has favoured two main kinds of solutions. One is the development of public but independent institutions for the management of Broadcasting (which the NBC represents), a development which has in turn powerfully advanced the scope and political strength of the social responsibility concept (McQuail, 1987).

The foundations of this theory rest on the assumptions that the media serve certain essential functions in society especially in relation to democratic politics (a view that the media should accept an obligation to fulfil these functions, mainly in the field of information and the provision of a platform for diverse views but also in matters of culture). Secondly, it is also expected to emphasise on maximum independence of media, consistent with their obligations to society. Lastly, is an acceptance of the view that there are certain standards of performance in media work that can be stated and should be followed (McQuail, 1987).

The social responsibility theory works on many principles. The media are expected to accept to accept and fulfil certain obligations to the society with the aid of their programming. These obligations are mainly to be met by setting high or professional standards of truth, accuracy, objectivity and balance. In accepting and applying these obligations into programming, the media should be self-regulating within the framework of law and established institutions. Therefore, the society and public have a right to expect high standards of performance and intervention can be justified to secure the public good (McQuail, 1987).



This theory is therefore relevant because the government strives, through the NBC, to regulate the activities of the broadcast media to ensure media carry out their activities with conformity to promoting peace, orderliness, decency and safety in the society. Nigeria's democracy provides relative freedom; the NBC serves as the umpire between the government and broadcast media in ensuring good quality and responsible programmes presentation. Hence, broadcast media must not only be committed, but their activities must also be seen to conform to the foundation of the social responsibility theory

#### *Broadcasting and Broadcast Regulation*

To broadcast means to spread or to scatter, as in planting. Broadcast are persuasive machineries that use electromagnetic impulses to reach the public instantly, without the connection of wires. Broadcasting, by nature is the most powerful universal means of instant public communication through the conveying of information, entertainment, education and persuasion in form of programmes (Dunu, 2002). Broadcasting therefore is a creative medium characterized by professionalism, choice and innovation meant to serve the interest of the general public. Their utilisation of audio and video technology make them capable of reaching the audience simultaneously, availing mankind with the best means of information dissemination and reception. They also enable individuals to share in and contribute to the world around them. The broadcast media influence the society both negatively and positively, setting the agenda for social, economic, political and technological development of a nation, for the public good (NBC Code, 2006).

Microsoft Encarta Encyclopaedia (2009) describes regulation as an official rule, law, or order, stating what may or may not be done or how something must be done.

*Regulation therefore, is "controlling human or societal behaviour by rules or restrictions. Regulation can take many forms: legal restrictions promulgated by a government authority, self-regulation by an industry such as through a trade association, social regulation (e.g. norms), co-regulation and market regulation. Regulation can be considered as actions of conduct imposing sanctions (such as a fine). This action of administrative law, or implementing regulatory law, may be contrasted with statutory or case law (Encarta Encyclopaedia 2009).*

Croteau and Hoynes (2000) however, notes:

*...understanding the regulation of the broadcast media depends largely on the understanding of the political environment in which they operate. A drastic difference exists between media in a democratic society and those in totalitarian nations. For instance, state control of the mass media is a routine element of totalitarian system. Hence, broadcast media and film studios act as propaganda arms of the state, promoting narrow sets of government sanctioned images and messages. As a result, the emergence of illegal underground media is common in such situations, affirming the active roles of citizens in even the bleakest of circumstances*



### **3. Regulation of Broadcast Media**

Governments in all nations serve as organising structure that constrain or promote the free activity of the media. Thus, the relationship between political forces and the media raises a lot of important questions about the limit of “free speech”, the impact of economic interest, and the appropriate role of government. This is because the government is expected to play the pivotal role of regulating the ownership, technology, content and distribution of the media. However, other informal regulators of the media include the media advocacy group, public interest organisations, religious groups and media critiques (Croteau & Hoynes, 2000).

In Europe, the European Platform of Regulatory Agency (EPRA, 2010) posits that several types of authorities are in charge of supervising the implementation of broadcasting legislation. Here, like elsewhere, broadcasting regulation usually encompasses the power to license broadcasters, to monitor whether broadcasters are fulfilling their legal obligations, and to impose sanctions if they fail to carry out those obligations. In addition to these traditional functions, those of organising and co-ordinating the broadcasting landscape can be added. However, Broadcast regulation may be exercised by governmental administrative authorities or by courts when it relates to, for example, issues regarding the protection of fundamental rights.

Notwithstanding, technological change and evolving legislative initiatives make media regulation a fast changing field. Indeed, the particulars of existing media regulation are subject to constant changes. However there exists a general dynamics that characterize the relationship between government and the media of all types. For instance, from a sociological perspective, this relationship illustrates both the constraining and enabling nature of political structures as they respond to external pressure and attempt to balance competing interests. It also reveals the socially constructed nature of ideas such as ‘public interest’ and the ‘freedom of the media’ (Croteau & Hoynes, 2000).

There are three basic categories of broadcast regulation: those on the administration of the broadcasting sector (e.g. award of broadcasting licences), the supervisory (e.g. programme monitoring) and the rule-making functions (e.g. codes of practice). Here again, the diversity of the powers of regulatory authorities can be remarked upon. It can be observed that, most authorities have the power to award licences but some may only make recommendations addressed to the Ministry. This is because the power of drawing up binding rules which is common in Anglo-Saxon systems is also not shared by all regulatory authorities in Europe (EPRA, 2010).

In addition, the rules regulating the media have, over the ages, not been different among the three basic types of communication media: the Print, broadcast and the common carriers (the mail system, telephone, telegraphs and the computer networks). Thus, the differences in regulation are often associated with technological differences. Everytime a new medium emerges, like the internet, the regulators must create the new rules within which the medium will operate. This process is an example of how outside social forces impact on the



media industry, reflecting the power of various players who have an interest in a particular medium. It is also an example of the pivotal role of technology in media development and use (Croteau&Hoynes, 2000).

The regulatory system exists to serve the public interest. Regulatory agencies have autonomy and independence from political or commercial interference and their members chosen through a transparent and democratic process. Their powers and responsibilities set out in law, including explicit legal requirements to promote freedom of expression, diversity, impartiality and the free flow of information. The regulatory authority has the necessary funding to fulfil these duties. It should also be accountable to the public, normally through the legislature. There should be evidence of the regulator exercising its powers and responsibilities; e.g. applying proportionate sanctions to protect the public interest (UNESCO 2008).

Consequently, it can be observed that the world over, the regulation of the broadcast media focuses mostly on (but not restricted to) ownership and content, outlets, programming, technology, etc; for the purposes of achieving morality, ratings and warnings, accuracy (advertising), national interest, political and social pressures etc (Croteau & Hoynes, 2000).

The development of broadcasting from the 1920s to the present day covers a period of significant technological and cultural changes, particularly in the areas of domestic affluence and lifestyle. The development of broadcasting can be seen as part of a relationship that also includes the state as a regulator and public as consumers. The dynamic nature of this relationship implies that the means, structures and functions of Broadcasting have had to evolve to meet the needs of new audiences and changing government legislation (O'Sullivan, 1994).

In the early stages of its history, it can be observed that broadcasting was fashioned by government policy, directed at establishing a national monopoly that was tied in with the notions of offering a public service. This was an attempt to control both broadcasters and the audience. However, more recently, government legislation has aimed at loosening some of these controls and 'deregulating' the duopoly, in order to open up broadcasting and allowing free-market commercialism to determine what is available to whom on what channel and at what cost (O'Sullivan, 1994).

From the beginning of broadcasting, various governments around the world have tried to influence its production. As early as 1904, the Post Master General took responsibility for the allocation of broadcasting frequencies to avoid the 'chaos of the airwaves' that the introduction of commercial radio had created in America. During the First World War, radio transmissions were banned except for military use. In 1922, a group of radio equipment manufacturers, called the British Broadcasting Company, were given a licence to run a monopoly broadcasting service in London, Manchester and Birmingham etc (O'Sullivan, 1994).



However, by 1925, the government resolved that, although radio was too important to be left in the hands of a commercial company and that it was inappropriate in a democracy for a broadcasting to be under direct state control, there was a need to maintain some kind of regulation on who provides what types of radio service. In England for example, as a compromise, by royal charter, the British Broadcasting Company was changed from a public commercial company into an independent national organisation, the British Broadcasting Corporation, which would act as a monopoly and as a trustee for the national interest (O'Sullivan, 1994).

In Ghana for instance, as highlighted by Buckley, Apenteng, Bathily and Mtimde (2005), not until the 1992 Constitution, the mass media, broadcast and print, were dominated by the State. Broadcasting was controlled through the Ghana Broadcasting Corporation (GBC), operated as a state monopoly. The Constitution provides the present day guarantee of the right to freedom of speech, including freedom of the press and other media. The Constitution sets out a substantive framework for the freedom and independence of the media with important protections against state interference. It includes the establishment of National Communications Authority (NCA) and National Media Commission (NMC) with responsibility to promote and ensure the independence of the media for mass communication and information. The 1993 Act (No. 449) establishes the National Media Commission as provided for in the 1992 Constitution Act. The functions of the National Media Commission, which are set out both in Article 166 of the Constitution and in the NMC Act, include:

*to promote and ensure the freedom and independence of the media for mass communication or information, and to take all appropriate measures to ensure the establishment and maintenance of the highest journalistic standards in the mass media, including the investigation, mediation and settlement of Complaints made against or by the press or other mass media. The Constitution, and the NMC Act, provides for the NMC "to make regulations by Constitutional instrument for the registration of newspapers and other publications, except in terms of any direction and control over the professional functions of a person engaged in the production of newspapers or other means of mass communication. It makes no specific provision for the making of regulations for broadcasting although this may be inferred from the general functions set out in Article 166 of the Constitution. At the time of the establishment of the NMC there were no independent broadcast media.*

Similarly, according to the National Communications Authority Act (Act No. 524) of 1996 was established to:

*regulate communications by wire, cable, radio, television, satellite and similar means of technology for the orderly development and operation of efficient communications services in Ghana and to provide for related purposes. In the absence of any other provision for broadcasting service*





*authorisation this Act has been used to regulate establishment of broadcasting services. The Act establishes the National Communications Authority which replaces the previous Ghana Frequency Registration and Control Board. The objects of the NCA, set out in Section 2 of the NCA Act include to ensure that throughout the country, as far as practicable, there are such communication services as are reasonably necessary to satisfy demand for the services, and to ensure that communications system operators achieve the highest level of efficiency in the provision of communication services and are responsive to customer and community needs. Communications services and communication systems are very broadly defined to include wired and wireless transmission and the conveyance of sounds, visual images and data.*

In South Africa, the Independent Communications Authority of South Africa (ICASA), a broadcast regulatory body which itself has constitutionally guaranteed independence, has significant regulatory powers with regard to the SABC. Section 6(2) of the Broadcasting Act 1999 gives ICASA overall responsibility for ensuring SABC complies with the terms of its Charter. The Broadcasting Act 1999 requires all broadcasting services of the SABC to be licensees of ICASA. In addition all broadcasters, including SABC must comply with the ICASA Code of Conduct, set out in Schedule 1 of the Independent Broadcasting Authority Act 1993 (Buckley et al: 2005).

In Nigeria, while the deregulation of the industry from 1992 has brought little changes, allowing for divergent views through private stations, the problem of monopolisation is still much in place. The monopoly enjoyed by the government media continued to be perpetuated by the exorbitant annual license fee charged by the National Broadcasting Commission (NBC). This situation puts the private stations at a disadvantage, as they have to compete with government-owned stations (that are not subjected to the same payment) in the same market (Olusola, 2008). This difficulty, coupled with the commercial interest of the private stations cannot allow the effective performance of the media responsibility demanded in democratic society. They must first succeed as a business before thinking seriously in term of public interest and service; consequently, most of their programmes are tilted towards fulfilling their business goals. Their programmes are anything but alien, elitist and imitation of foreign programmes, not just in content, but also in presentation, entertainment aimed at audience maximization being the main menu (Ayankojo, 2003 ascited in Olusola, 2008).

Alhassan (2006) investigates "Broadcast Regulation and Private Stations in Nigeria, in order to examine the Prohibiting of Live Rebroadcast of Foreign News by Local Stations. The paper studied the statutory, regulatory, and constitutional provisions as contained in the NBC Act, the National Broadcasting Code, and the Nigerian Constitution respectively. Consequently, the paper found that Constitutional freedoms are not absolute and Nigeria's broadcast regulations provided justification for the NBC actions. Findings of the paper elaborate on how nations of the global South craft legislations and regulations aimed at liberalising broadcasting locally, but curtailing the influence of global media organisations.



The paper also emphasises the dynamics of media law in emerging democracies that are confronting the challenges of balancing broadcast deregulation and freedom of expression on the one hand with media control and regulation on the other hand.

Similarly, in a workshop presentation on “Elections: need for equity and balance in stations’ reporting”, Ojiah (2010:p.4), stresses that regulation in station reporting is designed to ensure that each political party gets proper coverage. “Proper” does not necessarily mean “equal”. It is accepted that major parties, which already hold the most seats and are fielding the most candidates are entitled to greater coverage than minor parties. But when election issues are being discussed, a wide range of party political views should be represented.

#### **4. Challenges and Prospect of Broadcast Regulation in Nigeria**

There are many problems associated with the regulation of Broadcasting in Nigeria. Some of them have been identified here:

The most crucial challenge confronting the effective regulation of the traditional broadcast media in Nigeria is that of awareness of the content of the NBC code. Many stations in Nigeria may not be aware of its presence while only few have a copy of the code. In most cases, the NBC code is merely lying fallow, gathering dust in the office of the General Manager. Copies are hardly made available for the field officers to acquaint themselves on the acceptable guidelines for broadcasting in Nigeria. This was evident in a workshop organised by the NBC in Abuja in 2009 where senior managers in various stations were asked about NBC activities, and majority confirmed lack of awareness. This can therefore be the major foundation for the inadequacies witnessed on the airwaves.

Secondly, there is a problem of inadequate man power to actually carryout the objective of regulating the broadcast media in Nigeria. A case in view is that of NBC office in Kano state which is responsible for monitoring more than twenty broadcast stations in three states. The Zone, according to Ndolo (2006) comprises of Kano, Jigawa, and Katsina States. This is in addition to foreign transmission received within the zone. However, the zonal office is manned by only one monitoring officer and a secretary. This number is grossly inadequate in carrying out any serious work of monitoring the stations within the zone. This scenario is likely to be applicable in the other zonal offices across the country. The officers completely rely on letters of public complain on various broadcast in order to take any meaningful action.

Similarly, it is obvious that the regulatory agency like many government parastatals is not adequately funded and the facilities for the jobs are not adequately provided. A stroll into the offices will confirm a state of inadequacy of funding for the set up. The NBC offices do not have state of the art equipment for monitoring various stations. In some offices only few television sets and tape recorders with a computer set for typing memos are available. These without doubts cannot effectively deliver the required result in terms of monitoring the broadcast transmissions from many stations.



Finally, there is the challenge of effective monitoring and regulating foreign transmitted programmes emanating from the world receivers or the satellite media. Since the programmes are transmitted from distant places outside the scope of the regulatory agency, it becomes almost impossible to regulate both the contents and the sources. Today in Nigeria, many homes and offices are adorned with satellite dishes of various kinds and sizes beaming uncensored programmes to the recipients.

On the other hand, prospects abound in a nation with well-regulated broadcast media. Since many problems bedeviling nations today are conceived in the minds of men, it is only reasonable that the solutions are targeted at the same minds. Therefore, well regulated broadcast media have the potency of resolving many issues that armed confrontations are unable to resolve. By insisting on professional and decent transmission of the right societal values, members of the society can be prepared and equipped with the right frame of minds to advance the course of national development. This, to a large extent can have a ripple effect on other aspect of the national life. A well regulated broadcast can be very effective in coordinating activities of a nation building, such as mobilization against corruption, terrorism, insurgency, armed robbery, kidnapping, ritual killings, smuggling, etc or advancing patriotism, security, unity, peace, transformation etc. A case of reference is the Federal Radio Corporation of Nigeria in uplifting the people and uniting the nation through the programme contents.

Similarly, the benefit of a well regulated broadcasting in Nigeria's democratic culture cannot be over emphasised. The broadcast media, with their combination of sight and/ or sound have the strategic advantages of informing and educating the populace about the rules and tenets of democracy. They can mobilize people objectively during elections to choose credible and responsible leaders by organising issue based debate among candidates, and subsequently holding the leaders accountable to the electorates. Beyond these, they can also create forum for discussions among aggrieved citizens to avert violent demonstrations where citizens take laws into their hands. According to Ihechu and Okugo (2013) enables the society to check media content and portrayal .The media need to be well regulated so that their social responsibility can be effectively carried out. This guarantees their power to hold even the government accountable, dispensing truth, challenging wrong dispositions in society, among other things.

##### **5. Conclusion and Recommendations**

From the discussion above, it becomes very safe to conclude that a symbiotic relationship can exist between a well regulated mass media and a people oriented democratic society. This is because a well regulated media industry provides a fertile platform for progressive democracy to thrive. At the same time, a democratic setting is a necessity for the mass media freedom and unfettered operation of the mass media. Even though some challenges may abound, the benefits of regulating the broadcast industry remains a necessity for a desirable safe, united, and peaceful society where citizens are genuine stakeholders in the venture for rapid democratic and societal development.



There is an urgent need for serious sensitisation campaign to create awareness on the NBC code among the media practitioners especially in the public owned stations. This may require collaboration between the NBC and the various unions in the stations to organise workshops, seminars and other trainings to boost the awareness on the provision of the NBC code. It will also be pertinent to devise means to inculcate in students the knowledge of broadcast regulation in the curriculum of tertiary institutions offering Mass communication. This will facilitate the “catch them young” drive. There is need for government, through the NBC to enlighten parents on the need to deliberately control the viewership of satellite and domestic programmes by the youth especially the teenagers. The government, through the ministry of information needs to provide more funding and man power especially at the level of monitoring officers. This will go a long way to give the agency the much needed muscle to effectively carry out its duties effectively. Without doubt, the number of monitoring officers should match the number of stations within the zone under its control. There is need to constitute a broadcast industry team made up of representatives of stakeholders to also monitor the NBC and its activities. This can come in form of a bill to be passed by the National Assembly to constitute major stakeholders in the industry. It will help to stimulate the regulatory agency to be proactive and reactive to important statutory assignments.

#### **References:**

- Akinfeleye, R. A. & Okoye, I. E. (2003). *Issues in nigerian media history: 1900-2000 AD*. Lagos, Malthouse Press Limited.
- Aina, S. (2003). *Anatomy of communications*. Abeokuta, Julian Publishers.
- Alhassan, A. (2006). *Broadcast regulation and private stations in nigeria: examining the prohibiting of live rebroadcast of foreign news by local stations*. conference paper presented at the annual meeting of the international communication association, dresden international congress centre, Dresden, Germany. In: [http://www.allacademic.com/meta/p93284\\_index.html](http://www.allacademic.com/meta/p93284_index.html) Accessed on 29/03/10
- Bako, N.D. (2002). *Broadcast regulation in nigeria*. Abuja, NBC
- Boyd-Barrett, O. (2001). *Conceptualising the public sphere*. In Boyd-Barett, Q. (eds). *Approaches to media*. London: Arnold.
- Buckley, S.; Apenteng, B.; Bathily, A. & Mtimde, L (2005). *Ghana broadcasting study: a report for the government of ghana and the world bank*. Ghana, Ministry of Communication
- Croteau, D. & Hoynes, W. (2000). *Media and society: industries, images and audiences*. U.S.A, Pine Forge Press.
- Dunu, I.V. (2002). Broadcast programming strategies. In: Okunna, C. S. (2002). *Teaching mass communication: a multi- dimensional approach*. Enugu, New Generation Books.
- Galadima, A.B. (2012). *Knowledge and attitude of staff of freedom radio kano towards NBC code*. Unpublished master’s thesis with Bayero university, kano.
- Ihechu, I.P. & Okugo, U.Z. (2013). “Broadcasting Regulation and Broadcasting In Nigeria: An



- Overview of the Approaches” in Research on Humanities and Social Sciences.3, (2).
- McQuail, D. (1987): *Mass communication theory: an introduction*. London, Sage Publication.
- Microsoft encartaencyclopaedia (2009). 1993-2008 Microsoft Corporation.
- Nigeria broadcasting code*, 2006. Nigeria, national broadcasting commission.
- Ndolo, I. S. (2006). *Mass media systems and society*. Nigeria, RhyceKerex Publishers
- Nwosu, I. (2003).(eds). *POLIMEDIA: Media and politics in nigeria*. Enugu: ACCE.
- Ogbondah, C. (1994). *Military regimes and the press in nigeria, 1966-1993; Human rights and national development*. Lanham: University Press America.
- Omu, F. (1978) *Press and politics in nigeria*. Ibadan: Longman Publishers.
- Ogor, O. I. (2002). Broadcast and democracy. In: NBC (2002). Ed. *Broadcast regulation in nigeria*. Nigeria, National Broadcasting Commission.
- Oloyede, B. (1990). *Free press and society: Dismantling the culture of Silence*. Ibadan, Stirling-Horden Publishers Limited.
- Olusola, S.I. (2008). Expansion of public sphere in nigerian democracy: the imperative of media imperialism. In: Omu, F.I.A and Oboh, G.E. (2008). *Mass media in nigerian democracy*. Nigeria, Stirling-Horden Publishers Ltd.
- Omu, F. (1978) *Press and politics in nigeria*. Ibadan: Longman.
- O’Sullivan, T. Et al (1994). *Studying the media: an introduction*. USA, St. Martin’s Press Inc.
- Oso, L. & Pate, U. (2010). *Mass media and society in nigeria*. Lagos: Malthouse Press
- Pate, U. A. & Bashir, A.S. (2012). Media institutions and the process of democratization in nigeria: perception, responsibility and challenges. *journal of communication and media research*. 4 (1):
- Rivers, W. L; Peterson, T. & Jensen, J.W. (1971). *The Mass media and modern society*. 2<sup>nd</sup> Edition. America, Holt Rinehart and Winston, Inc.
- Thompson, T. (1997). *Power and the press*. Lagos, Positive Action Consortium.
- UNESCO, (2008). *Media Development Indicators: A framework for assessing media development*. Published by the United Nations Educational Scientific and Cultural Organisation, Communication and Information section. Paris, Baseline Arts Limited.
- Yusuf, B. (2001). Mass media in a constitutional democracy: The nigerian experience. In Alemika, E. O. et. al. (2001). (eds) *Constitutional federalism and democracy in Nigeria*. Kaduna: HRM.
- About Regulatory Authorities: A Plurality of Entities.  
<http://www.epra.org/content/english/index2.html>. Cited on: 29/03/2010  
*Principles on Freedom of Expression and Broadcast Regulation, ARTICLE 19*  
in:[law@article19.org](http://law@article19.org) [www.article19.org](http://www.article19.org)obtained: 05/01/2010



THE INTERRELATIONSHIP INTEGRATING CORRUPTION-FDI, GROSS  
FIXED CAPITAL FORMATION-EXPORT AND FDI: THE CASE OF SUB  
SAHARAN AFRICA

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**Abstract**

*This study seeks to investigate empirically the relationship between corruption, export, tariff and FDI in SSA countries for the period 2013 to 2017 employing sample of 24 SSA countries and applying the differenced generalized method of moment. The result of the study indicates that the lagged value of FDI, export and tariff have a negative effect on current FDI in the short run. The interaction of corruption and FDI posits a positive effect on FDI. However, the interaction of gross fixed capital formation and export has a positive and significant effect on FDI in the short run. In the long run, export and tariff posit a negative relationship and long run causality can be inferred. Interacting corruption and FDI, gross fixed capital formation and FDI have positive effect on FDI and a long run causality impact. The implication of this study is that a designed and deliberate policy must target reducing bureaucracy that promotes corruption; this would necessitate a liberalisation framework to promote a comprehensive competitive business climate to boost FDI inflow into SSA countries. In another development, operating a fairly average tariff policy that could not scare investors cannot be underscored. The consciousness of policy target is needed to improve on quality gross fixed capital formation to increase output thus promoting quality and efficient export cannot be undermined by institutions in SSA countries.*

**Keywords:** FDI, Corruption, Export, Gross Fixed Capital Formation

**1. Introduction**

There are numerous reasons why Foreign Direct Investment (FDI) inflow into Sub Saharan Africa has been relatively slow while corruption and macroeconomic instability continued to undermine policy action targeted at encouraging FDI inflow into Sub Saharan Africa (Asiedu, 2002). Dearth of empirical studies exists on the factors that determine FDI inflow, with methodological gaps and framework (see Asiedu 2003; Morisset, 2000). Financing Africa current account and balance requires external sources of finance; hence, it is imperative to examine factors that encourage FDI inflow into the region. This is also due to the undeveloped nature of capital markets in most African countries, portfolio investment inflows (equity and bonds) which are not significant and its volatile nature compared to FDI, hence FDI is a major source of external financing in developing countries but its





quality to sustained growth subject to academic and policy discourse (World Bank, 2017). In the case of FDI, in 2016 growth rate benefited from (FDI) and net exports, which were grossly boosted by the depreciation of the real exchange rate after its liberalisation episode (African Economic Outlook, 2018). According to African Development Bank (2020), Africa experienced the fastest growth globally in FDI flows in the period 2018 with 11 percent increase from \$41 billion to \$46 billion, compared with negative global flows -13 percent and flows to developed economies -27 percent and Asia +4 percent. There are empirical literatures on FDI and corruption with methodological limitations. These studies employed the ordinary least square regression technique and may not fulfil adequately the classical linear assumptions (see Voyer & Beamish 2004; Fahad & Ahmad 2016; Ahmad, Draz & Yang 2007). Although Canare (2017) used GMM technique of estimation, studies on the subject and GMM technique are relatively scanty. In addition, most studies have focused on outward FDI (see Ponce; Navarro & Grajeda 2019; Alguacil & Orts 2002; Herzer & Schrooten 2008). This study focuses on inward FDI. It is in view of this that this study seeks to investigate empirically the effect of corruption on inward FDI in Sub Saharan African countries. Thus, this study is structured into six sections including this introduction. Section two looks at empirical literature, section three captures the methodology, section four focuses on results and Discussion and section five of this study presents at summary conclusion and recommendation.

## **2. Literature Review**

In a study, Fahad and Ahmad (2016) employed the panel causality test on eight post conflict countries from 1984 to 2013, applying the dynamic ordinary least square regression. Results indicate a negative long run relationship between corruption and FDI. The causality runs from corruption to FDI. Ponce, Navarro and Grajeda (2019) used causality test to analyse the effect of three governance indicators for LA countries on Chinese outward FDI, employing panel data models of 21 LA countries from 2007 to 2016. The result of the study revealed a bidirectional causality from control of corruption, which implies that China considers priority the degree of corruption control before investing, and Chinese FDI has an impact on control of corruption, regulatory quality causes FDI for some of the sampled countries. This implies that China looks at regulatory quality and government effectiveness in LA countries when deciding to invest. In another study, Dritsaki and Dritsaki (2012) used two staged Engle and granger test (1987), cointegration test by Pedroni 1999 to estimate the causality between export and FDI in 12 new EU countries for the period 1995 to 2010. The result of the study shows a bidirectional relationship between export and FDI. Alguacil and Orts (2002) used Spanish data covering the period 1970.1±1992 and applying the vector autoregressive model, granger causality test and variance decomposition and the impulse response technique to investigate the effect of outward FDI on export. Results depict a causality running from FDI to export.

On the contrary, Canare (2017), in a study, examines the effect of corruption on FDI in Asian-pacific countries employing 46 countries from the Asia and the Pacific region for the sample period 2006 to 2013. The author also used the differenced generalized method of





moment GMM and the result of the study revealed that corruption has a negative and significant effect on FDI inflow. Teixeira and Guimarães (2015) in their study empirically investigate the relationship between corruption and FDI, using sample of 96 countries for the period 2000 to 2010, applying the logistic model. Results of the study show that using distinct proxies for corruption variables and controlling for other types of the countries institutional quality leads to distinct outcomes/conclusions. In isolation, the only significant corruption determinant of FDI is “Bribes” – countries where CEOs consider that irregular payments and bribes seldom occur and those that succeed in attracting high levels (in percentage of their GDP) of FDI inflows. Voyer and Beamish (2004) investigated the effect of corruption on Japanese FDI using 29,546 Investments in 59 countries and applied the ordinary least squares (OLS) linear regression analysis that the levels of perceived corruption in emerging economies are significant predictors of Japanese FDI. In another study, Zangina and Hassan (2020) used autoregressive distributed lag model technique to test for long run relationship during the period 1984-2017. Result revealed that control of corruption has a negative impact on FDI although non-significant. The result also shows that increase in control of corruption by one unit will stimulate FDI inflow by 4.02 per cent of the GDP. Xie and Xue (2019) investigated the impact of FDI and Improvements in the Quality of Export Products in the Chinese Manufacturing Industry applying regression technique. Result of the study reveals that FDI has a positive impact on the quality of Chinese export products

Herzer and Schrooten (2008), in their study, investigated the nexus between outward FDI and domestic investment in two industrial countries applying the Granger (1988) and autoregressive distributed lag model using US data. The result of the study reveals that US, outward FDI has positive and significant long-run effects on domestic investment. However, in Germany, this relationship exists only in the short run. In the long run, outward FDI substitutes for German domestic investment. In another study, Girma, Kneller and Pisu (2005), in their study, estimated the relationship between export and FDI for the period 1990–1996 applying the first-order stochastic dominance between random variables and the result shows that export has a positive relationship with FDI. Ahmad; Draz and Yang (2007), in their study explored the impact of outward foreign direct investment (OFDI) on the home country exports for selected ASEAN countries during 1981-2013 using the ordinary least square regression technique, result of the study indicates a positive and statistical significant relationship between FDI and export

#### *Theoretical framework*

There are two notable theories on relationship between corruption and FDI. The ‘grabbing-hand’ theory which argued in support that corruption resembles a ‘grabbing hand’ that hike up transaction costs. This theory is supported by (Shleifer & Vishny 1993; Bliss & Di Tella 1997) corruption is a factor that increasingly pushes up the cost of production by making investment climate difficult in the host country. This theory argued on the negative side effect as it discourages increase cost in innovative investment, lowers investment and increases inefficiency and misallocation of resources encouraging investment in



unproductive investment rather than investment in human skills. It is important to note that property and contract laws are important drivers to growth in investment. Violation of such laws could doubt the assurances and scare away technological transfer specifically FDI inflow.

On the other hand, the helping-hand theory supported by Lui (1985), Beck and Marher (1986) corruption influence investment climate positively. According to the theory, corruption allows for efficient ‘lubrication’ for rigid economic regulation and red-tape. When MNCs bribe the host government, MNCs could bypass stringent economic laws, institutions, regulations or red-tape and potentially obtain maximum benefits in terms of profitable contracts; this also allows the MNCs certain privileges to access the markets and subsidies, which would act as an extra incentive for them to engage in FDI.

### 3. Methodology

#### *Data Source*

This study employed the panel data spanning the period 2013 to 2017. A panel of 24 SSA countries is used as sample using the secondary data source due to availability of data in form of non-probability sampling technique.

#### *Empirical Model and Description of Variables*

This employs the GMM approach; hence the approach remains the key instrument in solving the dynamic panel analysis. The GMM approach is introduced by Holtz-Eakin et al. (1990), Arellano and Bond (1991) and Arellano and Bover (1995).

Below is the mathematical exposition of the techniques:

$$Y_{it} - Y_{it-1} = (\alpha - 1)Y_{it-1} + \beta_0 X_{it} + \mu_i + \varepsilon_{i,t} \dots\dots\dots 1$$

The above equation 1 indicates the GMM model where  $Y_{it}$  is the logarithm FDI,  $Y_{it} - Y_{it-1}$  is the rate of per capita income growth,  $Y_{it-1}$  is the initial level of FDI,  $X_{it}$  represents a vector of explanatory variables,  $\mu_i$  is an unobserved country-specific effect,  $\varepsilon_{i,t}$  is the error term and the subscripts i and t represent country and time period respectively. Rewriting (1), we obtain:

$$Y_{it} = \alpha Y_{it-1} + \beta_0 X_{it} + \mu_i + \varepsilon_{i,t} \dots\dots\dots 2$$

Similarly, the country specific effect is one key issue to be addressed in GMM approach thus to take account of this problem we however eliminate country-specific effects by taking first differences of our model in equation (2) thus we have the model below:

$$Y_{it} - Y_{it-1} = \alpha(Y_{it-1} - Y_{it-2}) + \beta_0(X_{it} - X_{it-1}) + \varepsilon_{it} - \varepsilon_{it-1} \dots\dots\dots 3$$

$$Y_{it} - Y_{it-1} = \alpha(Y_{it-1} - Y_{it-2}) + \beta_0(X_{it} - X_{it-1}) + \varepsilon_{it} - \varepsilon_{it-1} \dots\dots\dots 4$$

There is also argument on the limitation of GMM approach for instance; Levine et al. (2000) suggest the use of instruments in the model due to endogeneity problem which is also a common problem associated with GMM approach. Similarly our new error term



$(\varepsilon_{it} - \varepsilon_{it-1})$  in equation (3) is correlated with the lagged dependent variable,  $(\mathcal{Y}_{it-1} - \mathcal{Y}_{it-2})$ . Moreso, here all the variables in the above equation have been time differenced to remove the fixed effects present to distort the robustness of the data i.e. unobserved heterogeneity.

For this reason, the GMM panel estimator uses the following moment conditions:

$$\mathbb{E}[\mathcal{Y}_{it-s}(\varepsilon_{it} - \varepsilon_{it-1})] = 0 \text{ for } s \geq 2; t = 3, \dots, T \dots \dots \dots 5$$

$$\mathbb{E}[X_{it-s}(\varepsilon_{it} - \varepsilon_{it-1})] = 0 \text{ for } s \geq 2; t = 3, \dots, T \dots \dots \dots 6$$

The assumptions that the error term,  $\varepsilon$ , is not serially correlated and that the explanatory variables,  $X$ , are weakly exogenous. The authors refer to this as the difference estimator.

Alonso-Borrego and Arellano (1996) and Blundell and Bond (1998) show that when the explanatory variables are persistent over time, lagged levels of these variables are weak instruments for the regression equation in differences. The justification for using differenced GMM estimation is that it allows the use of instrumenting level variables with their differenced value. In addition to that, the system GMM produced a Hansen test statistics indicating that there are too many instruments using only one lag period. Hence, difference GMM is employed to check for endogeneity.

*Variable Description*

FDI: is inflows (% of GDP), it is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP. On the other hand, Corruption is measured as Corruption Perceptions Index (CPI), which is a composite index, or poll of polls, that ranks countries in terms of the degree to which corruption is perceived to exist among public officials and politicians.

Weighted tariff: Weighted mean applied tariff is the average of effectively applied rates weighted by the product import shares corresponding to each partner country. However, GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in constant local currency (see WDI, 2020)

Exports of goods and services represent the value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments (see WDI, 2020). The parameter Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private



residential dwellings, and commercial and industrial buildings. According to the 1993 SNA, net acquisitions of valuables are also considered capital formation (see World Development Indicators, 2020)

#### 4. Results and Discussion

The result of differenced GMM as depicted in table 1 shows that the past FDI inflow level is a strong predictor of its current level. By implication, the lagged value of FDI across all models are statistically significant at 1 percent level of significance. The model 1 does not include the collapse option 0.0212 not significant at 1%. All column across model 2,3,4,5,6,7 indicate significance at 1% level. Thus, the lagged value of FDI has a negative and statistical significance on current FDI, indicating that the lagged value of FDI can serve as additional instrument in the model.

The coefficient Export shows that column 3,4,5,6,7 are statistically significant at 1% level indicating a negative relationship with FDI. Integrating corruption with FDI, result shows across all model specification that the coefficient corruption (0.508) is positive and statistical significant at 1% level and this confirms with the study by Fahad and Ahmad (2016). However, this result contrasts the study by Canare (2017). The implication of this finding is that a marginal effect of the change in corruption in the control of corruption has a positive influence on FDI. Similarly, integrating gross fixed capital formation with Export across all models of specification depicts a positive and statistical significant relationship with FDI (0.0031). This implies that a marginal effect of change in gross fixed capital formation has a positive role on FDI into SSA. The coefficient tariff depicts a negative and significant relationship with FDI in all column.

Table 1: Differenced GMM

VARS	1	2	3	4	5	6	7
FDI LI	-0.02** (0.02)	-0.06*** (0.01)	-0.06*** (0.01)	-0.02** (0.02)	-0.06*** (.04)	-0.06*** (0.01)	-0.06*** (0.01)
Gdp	-4.67** (3.25)	3.52** (3.61)	2.38** (3.03)	-4.67** (3.25)	3.52** (5.79)	3.52** (3.22)	3.52** (3.61)
Export	-0.05** (0.03)	-0.06** (0.03)	-0.06*** (0.03)	-0.05*** (0.03)	-0.06*** (0.04)	-0.06*** (0.02)	-0.06*** (0.03)
Currfdi	0.56*** (0.01)	0.50*** (0.01)	0.51*** (0.01)	0.56*** (0.01)	0.50*** (0.04)	0.50*** (0.01)	0.50*** (0.01)
Gfcfxpo	0.00*** (0.08)	0.00*** (0.01)	0.00*** (0.01)	0.00*** (0.08)	0.00*** (0.01)	0.00 (0.01)	0.00*** (0.01)
Tariff	-0.21*** (0.09)	-0.91*** (0.15)	-0.84*** (0.10)	-0.21*** (0.09)	-0.91*** (0.50)	-0.91 (0.13)	-0.91*** (0.15)
No. of Obs	42	42	42	42	42	42	42
Time Dummies	yes	yes	yes	yes	yes	yes	Yes
Number of Instruments	11	8	9	11	8	8	8
No of groups	15	15	15	15	15	15	15
F Statistic	3018.64	3478.55	5764.52	3018.64	750.01	30561.58	3478.55
GMM	1	1	1	1	1	1	1
Instrument Lag							
AR(1)	0.165	0.104	0.148	0.165	0.259	0.104	0.104
AR(2)	0.232	0.572	0.715	0.232	0.693	0.572	0.572
Hansen test	0.479	0.758	0.769	0.479	0.871	0.758	0.758

Source: Authors computation using STATA

Notes: \*\*\* \*\* \* denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis).



Applying the one lag length, the specification test of AR (2) indicates that the models do not have the problem second order serial correlation due. However, the Hansen test statistics shows that the instruments in the models are not over identified. Thus, inferences can be drawn from the findings. The insignificant coefficient GDP could be attributed to poor performance of formal sector and a large informal sector which is underdeveloped in SSA generally. Similarly, integrating corruption and FDI shows an equalising effect on FDI. For instance, when corruption is controlled, given FDI inflow into SSA, it has much role increasing FDI into the region.

The Differenced GMM is basically a short run estimate. Thus, a long relationship is drawn from the significant coefficients in all columns. A cursory look at table 2 shows the long run estimate. Integrating corruption and FDI indicates a positive long run relationship with FDI in the long run.

Table 2: Long run estimates

Vars	Coef Std. Err
Currfdi	0.4826*** (0.01)
Gdp	2.24** (2.85)
Tariff	-0.7944*** (0.09)
Gfcfexpo	0.0030*** (0.09)
Export	-0.0622*** (0.02)

Source: Authors computation using STATA

Notes: \*\*\* \*\* \* denotes 1% 5% 10% statistical significance. Z statistics (in parenthesis).

Export impacts a negative effect on FDI in long run and it is statistically significant at 1% level. This contrast the study by (Girma, Kneller & Pisu 2005; Xie & Xue 2019). Tariff also impacts a negative effect on FDI in long run and it is statistically significant at 1% level. Integrating gross fixed capital formation and export shows a positive relationship with FDI in the long run. In addition, integrating corruption and FDI also depict a positive and statistical significant relationship with FDI in the long run. This also implies that it can be infer there is a long run causality effect between export, tariff, gross fixed capital formation, corruption and FDI.

## 5. Conclusion and Recommendation

Considering the abundant literature on the subject and the macroeconomic instability featured in African economies, this study investigated empirically the relationship between corruption and FDI in SSA countries for the period 2013 to 2017, covering sample of 24 SSA countries and applying the differenced generalised method of moment. Result of the study indicates that the lagged value of FDI, export and tariff have a negative effect on



current FDI in the short run. The interaction of corruption and FDI posits a positive effect on FDI and so also the interaction of gross fixed capital formation and Export. In the long run, export and tariff posit a negative relationship and long run causality can be inferred. Interacting corruption and FDI, gross fixed capital formation and export have positive effect on FDI and a long run causality impact. The implication of this study is that a design and deliberate policy must target reducing bureaucracy that promotes corruption. This would necessitate a liberalisation framework to promote a competitive business climate to boost FDI inflow into SSA countries. Operating a fairly average tariff policy that could not scare investors cannot be underscored. There is also the need for consciousness of policy target to improve on quality gross fixed capital formation to increase output thus promoting quality and efficient export cannot be undermined by institutions in SSA countries.

### References

- African Economic Outlook (2018). Macroeconomic developments and structural change
- Alguacil M. T. & Orts, V. (2002). A multivariate cointegrated model testing for temporal causality between exports and outward foreign investment: the Spanish case, *Applied Economics*, 34(1): 119-132
- Arellano, M. & Bover, O. (1995). "Another Look at the Instrumental Variable Estimation of Error-Components Models." *Journal of Econometrics* 68 (1): 29 – 51
- Arellano, M. & Bond, S. (1991). "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment." *Review of Economic Studies Limited* 58: 277 – 297.
- Asiedu, E. (2002) 'On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different?', *World Development* 30 (1): 107-19.
- Beck, P. & Marher, M. W. (1986). A comparison of bribery and bidding in thin markets. *Economic Letters* 20, 1-5.
- Bliss, C., Di Tella, R., (1997). Does competition kiss corruption? *The Journal of Political Economy* 105, 1001-1023
- Canare, T. (2017). The effect of corruption on foreign direct investment inflows: evidence from a panel of Asia-Pacific countries Asian Institute of Management, Makati, Philippines 3-55.
- Dritsaki D. & Dritsaki, M. (2012). Export and FDI A granger causality analysis in heterogenous panel. *Economics Bulletin* 32(4): 3128-3139
- Fayyaz A. Muhammad U. & Yang, D. S. (2016). "A novel study on OFDI and homecountry exports: implications for the ASEAN region", *Journal of Chinese Economic and Foreign Trade Studies* 9(2): 131 – 145 Emerald Group Publishing Limit
- Girma S., Kneller, R. & Pisu, M. (2005). Exports versus FDI: An Empirical Test Review of *World Economics* 141 (2) Kiel Institute for World Economics
- Herzer, D. & Schrooten, M. (2008). Outward FDI and domestic investment in two industrialised countries. *Economics Letters* 99, 139-143.
- Lui, F. T., (1985). An equilibrium queuing model of bribery. *Journal of Political Economy* 93, 760-81.



- Morrisset, P. (2000). "Foreign Direct Investment to Africa: Policies also Matter," *Transnational Corporation*, 9 (2):107-125.
- Ponce L. A. B; R. Navarro & Grajeda, M. R. (2019). Causality between Chinese investment in Latin America and the governance indicators Competition and Regulation in Network Industries XX(X) [sagepub.com/journals-permissions](http://sagepub.com/journals-permissions)
- Schrooten H, D M. (2008). Outward FDI and domestic investment in two industrialised countries. *Economics Letters* 99, 139–143
- Shleifer, A., Vishny, R. (1992). Pervasive shortage under socialism. *The Rand Journal of Economics* 23, 237-46
- Teixeira A. A. C. & Guimarães, L. (2017). Corruption and FDI: Does the Use of Distinct Proxies for Corruption Matter?, *Journal of African Business*, 16(2): 159-179,
- Voyer P. A & Beamish, P. W. (2004). The Effect of Corruption on Japanese Foreign Direct Investment *Journal of Business Ethics* 50: 211–224
- World Bank, (2017). How developing countries can get the most out of direct investment. The World Bank Group. The Global Investment Competitiveness Report 2017/2018
- Xie W & Xue, T. (2019). FDI and Improvements in the Quality of Export Products in the Chinese Manufacturing Industry, *Emerging Markets Finance and Trade*, 1–11 Routledge Taylor and Francis
- Zangina S & Hassan, S. (2020). Corruption and FDI inflow to Nigeria: a nonlinear ARDL approach. *Journal of Financial Crime* Vol. 27(2): 635-650 © Emerald Publishing Limited