

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

Habiba MohammedBello Umar (habibambumar@gmail.com) +2347063983267

Department of Economics, IBB University, Lapai Niger State, Nigeria

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 1(0) that is at level and some at 1(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 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-fullar (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 '1st 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;

$\Delta X_{t} = \mu + ax_{t-1} + \sum_{i=1}^{k} \beta \Delta X_{t-1} + \varepsilon_{t}$	1
$\Delta X_{t} = \mu + \beta t + a x_{t-1} + \sum_{i=1}^{k} \beta \Delta X_{t-1} + \varepsilon_{t} \dots$	2
$\Delta X_{t} = a x_{t-1} + \sum_{i=1}^{k} \beta \Delta X_{t-1} + \varepsilon_{t}$. 3

Where; Δ denotes the first different operator, x_1 is the variable under consideration, μ is the constant term, t is the time trend, x_{t-1} is the lag of the series being tested, k denotes lag length, ΔX_{t-1} is the first difference lagged series usually taken to eliminate the problem of serial correlation (Dickey and Fuller, 1979) and ε is the white noise process with ε_1 with $\varepsilon_1 \pi_1$ id (σ^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.

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

 β_0 = parameter intercept/constant, β_1 , β_2 , = 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 1(0), 1(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	
variable	Level	1 st Difference	Level	1 st 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 1st difference and some at level. Variable such as Inflation (INF) is stationary at 1st difference at intercept while stationary at level



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

Diagnostic Testing

Table 2: Diagnostic Table

Diagnostic	T-statistic (prob)
\mathbf{R}^2	0.839315
Adjusted R ²	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^2 adjusted R^2 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.



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 57.464	61		
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 I	Run F	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) ***
С	-18.99077	4.753223	-3.995345	(0.0040) **

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



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) *
С	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 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. Inflations 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*.
- Dinkelman, 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. Corperation. 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*).