

IMPACT OF HIGHER EDUCATION ON NIGERIA ECONOMIC GROWTH

IDRIS Ahmed, Sani¹ · ABDULSALAM Jibril²

¹Dept. of Economics, Kogi State University Anyigba, Kogi
08062065126 ias126@yahoo.com

Dept. of Management Studies, Adamawa State University Mubi,
08035950423, abudulsalamjib@yahoo.com.

Abstract

This research focuses on the impact of higher education on Nigeria economic growth. The study uses secondary data for the period of 1990 to 2018 for its analysis. The specific objectives of the study are to examine the impact of higher education on Nigeria economic growth; and to evaluate the relationship between higher education and Nigeria economic growth using Autoregressive Distributed Lags (ARDL) method. The results show that all levels of education, including higher education, have positive and statistically significant effect on the growth rate of per capita income in Nigeria. This implies that conscious and positive investment needed to be encouraged. Also, the result differs from previous research submission that finds no significant relationship between higher education and income growth. Therefore, the study suggested that conducive legal, stable infrastructure, and reliable security framework for achieving sustainable improvement in the nation higher educational system has to be encouraged in Nigeria.

Keywords: higher education, economic growth, ARDL, Nigeria.

Introduction

The driving fulcrum of nation's economic growth is the accumulation of their human capital or human development. Lucas (1988) opined that physical capital plays an essential but decidedly subsidiary role to human capital. The scholar emphasized that the main source of differences in living standards among nations is differences in human capital. The focus of this study is to investigate the impact of higher education as proxy of human capital on the growth rate of per capita income (economic growth)

in Nigeria for the period of 1990-2018. Expanded neoclassical growth equation with higher secondary and primary education human capital as added repressors is used for estimation. The growth rate of income in Nigeria undulates greatly over the years. For example, between 1990 and 2018, aggregate GDP of the country grew at an average annual rate of 6 percent. The instability in or fairly unsustainable GDP growth rate is often aligned with investment in physical capital. However, observation or empirical evidence from other economy proved that, there could be other equally important sources. Uzun, Kabadayi, and Emsen (2012) posited that principal among other factors that encouraged nation economic growth is her level of human capital endowments. Scholars like Kwabena, Oliver, and Mitiku (2006) broadly believed that human capital, has several aspects, including education, training, and health. Nevertheless, the concern of this research is to explore the growth impact of higher education which is one aspect of human capital.

Recent growth theory suggests that human capital has a positive impact on economic growth and contribute same as physical capital (Carlos, 2013). However, some empirical evidence generally show that human capital has a positive and statistically significant impact on the growth rate of per capita income. Barro and Sala-i-Martin (2003) posited that if primary school enrolment rates at independence in African countries had been as high as those in OECD countries, the average annual growth rate of per capita income in Africa would have been 2.37 percent instead of the 0.9 per cent recorded in the last four decades. Conversely, if African countries had had the same rate of investment in physical capital as OECD countries during the same period, GDP per capita would have grown by 0.44 percent higher. The emphasized that this additional contribution to the growth rate of per capita income is only 30 per cent of the additional contribution that education would have made to economic growth in Africa. This proposes that education has a much larger impact on economic growth in African countries than physical capital.

While the growth literature broadly advocates that education human capital has an optimistic impact on the growth rate of income, it is not clinical on what level of education human capital is positively related to the growth rate of income. Scholars like Bank (2013), Carlos (2013), Jemna (2011), Mehmood, Khan, and Khan (2012), and Tiruneh and Radvansky (2011) maintained that the importance of research and development (R & D) as the source of growth. However, Borge (2015) posited that all level of education is pivotal to economic development. Todaro (2012) argued that primary education remained a relevant source of economic growth especially in poor and less economic vibrant nations especially in Africa. He further emphasized that the higher the level of educational attainment the higher the income level; this invariably implies that higher education becomes more important for the growth process as income level increases.

Unarguably, the education human capital stock in Nigeria when compared to her contemporary in Asia and Eastern Europe is low (Sikiru, 2011). The scholar maintained even though, the enrolments into primary, secondary, and tertiary school has tremendously improved in the last decade in Nigeria, the quality of education acquired remained a cause of worry. The scholar submitted that, investment in human capital education has drastically fallen. In collaborating with this position, earlier research by Kwabena, Oliver, and Mitiku (2006) reported that in Africa, enrolments into primary, secondary, and tertiary in 1995 were 51, 39, and 20 per cent respectively of world averages while the average years of schooling in Africa was only 42 percent of world average; averages that were dramatic improvements over 1965. This rapid improvement was achieved with relatively large investments in education. Between 1970 and 1995, Sub-Saharan African countries, on average, spent 3.7 per cent of GPD and 14.9 per cent of government budgets on education compared to the world averages of 3.35 and 12.6 per cent respectively. Despite these relatively high investments in education, education human capital in Africa remains low.

There is argument as to what level of education deserves more attention in Nigeria. Positioned on private and social returns accruing to education in the country, there have been submissions that Nigeria should pay more attention on primary education at the cost of higher education levels due to the social returns to primary education are much higher than those of the other levels. Based on the externalities associated with education at all levels, it is most likely that the growth impact of any level of education will be different from the private returns to education. Loyalist of the growth impact of primary versus higher levels of education position are based on the fact that as the driver of growth seem to suggest that these levels of education are substitutes. It is clear that higher education and lower levels of education are not substitutes, but complements. Debates therefore should emphasis on snowballing impact of all levels of education human capital on economic growth. One of the many ways to evaluate the social impact of higher education human capital is to estimate its impact on the growth rate of per capita income. This study focus on the growth impact of higher education without getting into the debate about the relative importance of primary and higher education in the growth process.

Despite the conceivable contribution of higher education human capital in explaining nations income growth, very few empirical studies have been conducted on the impact of higher education human capital on economic growth in Nigeria. This study is an effort to contribute to the literature. This attempts to investigate the impact higher education on Nigeria economic growth and also examine the relationship between higher education and Nigeria economic growth. This research is divided into five sections. Section 1 is this introduction and Section 2 deals with the review of related literature. Section 3 and 4 present the methodology and discussion of results, respectively. Section five is the summary and study implications.

Literature review

Like any other concept, opinion varies on the impact of higher education on nation's economic growth and the relationship between the two. Not until recently, in literature of development economics emphasized more on the importance of education in the development process, but played down its analysis by incorporating appropriate growth theory. Scholars expounded the empirical position of Mankiw, Romer, and Weil (1992). These scholars emphasized the importance of human capital generally, and of education in particular in growth theory in their endogenous growth models as an expanded neoclassical growth model. In this expanded neoclassical growth model, human capital is viewed as an added input, hence countries with faster growth rate in education will have faster transition growth rates thus higher incomes. Advocates of endogenous growth models like Aghion and Howit (1998), Barro (1999), and Barro and Sala-i-Martin (1995) understand education as a process that varies the production technology positively thereby boosting output via new products, processes, or improved knowledge. They maintained that education makes it easier to acclimatize foreign technology thereby facilitating resource transfer to the most technologically dynamic sector of the economy. In corroboration, Kim and Kim (2000) opined that education is pivotal to increasing returns hence could overcome the growth reducing effect of diminishing returns to physical capital. To the advocates of endogenous or expanded neoclassical growth model, education should have a positive effect on the growth rate of income. However, Appiah and McMahon (2002) and Azarriadis (1990) submitted that it is possible that a minimum level of education is required in order for education to have any measurable growth impact on an economy.

The growth outcome of education is an empirical subject, henceforth review of empirical work on the growth rate of income is necessary. Howard and Richard (1999) and Smith (2015) submitted that education has positively affects economic growth indirectly through technical progress. However, some researchers like Loening and Bhaskara (2010), Shaihani, Harisb, and Ismaila

(2011), and Tsamadias (2012) find a direct positive and statistically significant relationship between education and income growth. Additionally, researchers reported a positive relationship between educational enrolment rates and growth rate of GDP per capita in African countries. Devarajan, Mongab, and Zongoc(2011)find that education has a positive and statistically significant effect on the growth rate of income in their analysis of some Africa countries.

Gunawardena, Kwesiga, and Lihamba (2006) observed that 36 percent of educated human capital in a sample of African countries is devoted to rent seeking activities and this reduces income growth rate by 0.7 percentage points annually. Also, Gyimah-Brempong, Paddison, and Mitiku (2006) finds similar results but very robust one for higher education and economic growth. This suggests that the growth impact of education partly depends on the proportion of highly educated people who are productively employed. Keller (2006) argues that the growth effect of higher education depends on the some components which includes among others are sincere investment in education, growth-enhancing quality of education, and the efficiency rate labour markets allocate highly skilled labour to productive deeds.

In Nigeria like other African countries, some scholars have x-rayed the relationship between higher education and economic growth. However, there was no conceited effort in having agreed position in their submission. Keller (2006) argued that despite the epileptic investment in education, the impact remain positive but not significant. He maintained that if the country can applied the stated UNESCO investment standard, the relationship will not only be positive but also significant. Of the reviewed literature, none of the studies mentioned above studies the growth impact of higher education in Nigeria. Similarly, William, Teresa, Hartnett, and Erich(2003) submitted in their statue report that a positive and significant relationship exist between investment in education and economic growth. However, their emphasized that recognition should be accorded to primary level of education not higher education. Dabalén, Bankole, and Olatunde (2001)observed that

higher education has a positive impact on income growth. But believed that it is possible with a long lag duration. The scholars are of the view that in the short run, the impact might be weak, negative, and even insignificant..Bangura (1994) finds that in Nigeria, education positively affects income growth directly and indirectly, through improved health, the environment, investment in physical capital, reduction in crime rates and political instability. However, he did not investigate the growth impact of higher education on Nigeria economic growth. Farayibi (2015) finds that all things been equal, the higher the level commitment and quality of higher education, the stronger the growth impact on the economy. Invariably, he maintained that the country economic growth is a function of quality education at the higher level. The study becomes necessary due to the existence of disparities in the reviewed scholars submissions.

Methodology

This section explained the data source and the method used in analyzing the data. Data used in this study were sourced from Central Bank of Nigeria (CBN) and National Bureau of Statistics (NBS). The study used nominal figures and annual Nigeria data for the study period. To ensure adequate observation of sample size, the selected time period is taken.

Model specification

This study investigates the impact of higher education on income growth in Nigeria following Kwabena, Oliver, and Mitiku (2006) by adopting the expanded neoclassical growth equation of the Mankiw, Romer, and Weil (1992). The equation uses three levels of education namely, higher, secondary, and primary as measures of human capital. This study however modifies Kwabena, Oliver, and Mitiku (2006) version of the MRW (1992) model by introducing political instability as a regressor in the growth equation. Several studies like Sani and Sallahuddin (2015) and Sani, Sallahuddin, and Muhammad (2016) submitted that the incidence of political instability negatively affects the growth rate of income.

Given the incidence of political instability in Nigeria during the sample period, it is important that we account for this phenomenon. Institutions are very important for the efficient functioning of an economy (Sianesi & Van Reenen, 2003). The researchers viewed the incidence of political instability as the manifestation of weak or inefficient institutions as it affects the availability and utilization of human capital. This also justified inclusion of incidence of political instability as a regressor in the growth equation.

Several justifications exist on why education would have positive impact on economic growth. In endogenous growth models, education impact on economic growth via technical progress either developed domestically or through importation and localization of foreign technology. There exist positive externalities in physical capital investment only when education human capital is available (Greiner & Semmler, 2002; Rebelo, 1991). These scholars emphasized that this explains why some developing countries demonstrate convergence while others do not. Furthermore, education is also likely to increase the efficiency with which other inputs are used, hence contributing to increases in total factor productivity. However, explicit explanation of what level of education manifested the above position is higher education (Gyimah-Brempong, & Mark, 2004). To these scholars, technical progress, either domestically developed or imported, is not likely to be dependent on primary education, but rather on higher education. They observed that higher education may be a necessary but not sufficient condition for income growth. Education is also likely to improve the quality and quantity of other inputs as well as improve the institutional environment in which growth takes place.

Additionally, the impact of education on economic growth has been viewed as a socializing dynamism rather than a technical progress (Gradstein & Justman, 2002). To them, education, reduces the cost of enforcing desirable social norms, lessens the potential for ethnic conflicts in ethnically diverse societies, as well as decrease transaction costs by shrinking social distance between

individuals in a society. Given the extent of ethnic fractionalization in Nigeria, these are likely to be important growth factors in Nigeria. However, to Appiah and McMahon (2002), these observed socializing factor is obtainable at the elementary and secondary level of education and not at the higher level. They believed that it is the level of education that is at the local level often.

Based on the foregoing, the study postulates that the aggregate production function, expressed in per capita terms (Y), as a function of technology (a), physical capital (k), and human capital (h). Formally, the production function is written as in Equation [1]:

$$[1] \quad Y = ak^\alpha h^\beta$$

Taking the natural log of the production function and differentiating the resulting expression with respect to time gives the growth rate of per capita output as in Equation [2]:

$$[2] \quad Y^* = a^* + \alpha k^* + \beta h^*$$

Where Y^* , a^* , k^* , and h^* are the growth rates of output, technology, physical and human capital respectively. Human capital has several dimensions. However, we assume that human capital is directly proportional to educational attainment. Since the growth effects of education are likely to differ by levels of education (Petrakis & Stamatakis, 2002) the study proxy H for higher, S for secondary, and P for primary education, respectively. We follow the literature and proxy technology by initial income (y_1) and the sum of population growth, depreciation and technical progress (Pop). Based on the discussion above, the variant of the MRW growth equation is estimate as in Equation [3]:

$$[3] \quad Y = \alpha_0 + \alpha_1 y_1 + \alpha_2 H + \alpha_3 S + \alpha_4 P + \alpha_5 k + \alpha_6 Pop + \alpha_7 PI + \varepsilon$$

where Y is the annual growth rate of real GDP per capita (in constant 2002 US\$), higher, secondary and primary are changes in the stocks of higher, secondary and primary education human capital respectively, Pop is the sum of average annual population growth rate, depreciation rate and technical progress for the country, y_1 is initial income, PI is the incidence of a political instability in the country, and k is physical capital formation. The study proxy part of savings by k , which denotes gross capital

formation as a percentage of GDP. In accordance with the empirical growth literature, the apriori expectation is that the coefficients of H , S , P , and k to be positive while those of Pop and PI are expected to be negative. If conditional convergence operatives in Nigeria, it is expected that the coefficient of y_1 to be negative. With the exception of PI , we estimate the equation on the log transforms of all the variables, thus allowing interpretation of the coefficient estimates as elasticity.

The regressor of major interest in this paper is higher education human capital (higher). However one measures this variables - absolute number of people attaining or enrolled at a certain level of education, or the proportion of the population attaining or enrolled at a given level of higher education, or the average years of educational attainment by the population - education human capital increases with the level of per capita income across countries and through time for a given country (Barro & Sala-i-Martin, 2003). This makes higher, secondary and primary endogenous regressors.

The growth equation is estimated with data from Nigeria over the 1990-2016 period using the ARDL. This is aimed at investigating the impact of higher education on the nation's growth and also to ascertain the relationship between higher education and Nigeria economic growth. This is achieved by the estimation of Equation [4]:

$$[4] \quad Y_t = \alpha_0 + \alpha_1 y_{1t} + \alpha_2 H_t + \alpha_3 S_t + \alpha_4 P_t + \alpha_5 k_t + \alpha_6 Pop_t + \alpha_7 PI_t + \varepsilon_t$$

The error term in Equation [3] is a composite error that contains a country specific component n_i a time component ε_t and an idiosyncratic component v_{it} . Meanwhile, ε_t is error term and assumed to be a white-noise process (Bollerslev, 1986). The composite error term is given as in Equation [5]

$$[5] \quad \varepsilon_{it} = n_i + \varepsilon_t + v_{it}$$

Data Analysis

Descriptive statistics and stationary tests was conducted on the data sample with the intention of scrutinizing their characteristics. These test also aid in understanding the appropriate method to be used for analysis. Distributive statistic tests were conducted to understand if the main variable exhibit time series variability and leptokurtosis characteristics. The statistics of the two variables of interest are depicted as in Table 1. Results from Table 1 show that the J-B value of 29.058 deviated from normal distribution. Similarly, skewness and kurtosis represent the nature of departure from normality. The *Y* value for skewness is 6.114 and it reflects positive skewness and the value for kurtosis is 73.215 and this suggests that there is peak point in the *Y*. From this it can be observed that the *Y* variable exhibits significant deviations from normality. The coefficient of kurtosis is 73.215 and it is larger than three. This demonstrates significant leptokurtosis. A distribution with a coefficient larger than three is said to be leptokurtic and one with a coefficient smaller than three is platykurtic. The *H* variable reflects positive skewness with a value of 5.104 and this shows that there is asymmetry in the *H* variable. These results show that the data has time series property and can be analyzed using the proposed ARDL method on the data.

In any time series data, it is necessary to confirmed that the mean and variance are constant over time to avoid a spurious estimation. Stationarity is essential for standard econometric theory. The Phillips Peron test was performed for the study. The results showed that, that all variables were not stationary in levels but became stationary after their first differencing. Table 2 gives the PP test results.

Table 2 shows that all variables were not stationary in levels. At levels, the p-values of the variables all being greater than 0.05 indicate that we could not reject the null hypothesis of the existence of unit root in levels for all variables. However, the variables are stationary are stationary after first differencing. The magnitude of the p -values (less than 0.05) are significant, indicating that the variables are stationary at first difference.

Table 3.

From the lag selection results in Table 3, lag two was selected by the entire selection criterion. With this result from Table 3 estimation of VAR ARDL lag length selection, estimation of the ARDL optimal model would be conducted accordingly. Following Pesaran, Shin, and Smith, (2001) the ARDL optimal model level order, ARDL for the effect of H in Nigeria is the model (3,1,0,0,1,1). From this ARDL optimal model level order ARDL model, the relationship between the estimated variable can easily be ascertained. Table 4 displays the t -statistics test for Equation [4] defined variables. The dependent variable Y proved to have co-integrating relationship with the independent variables in the model. From the table, the calculated t -statistics is at level of five percent level of significance.

From Table 5, the coefficients of the variable of interest H is statistically significant at five percent level of significance. These results agree with the a priori expectation of the study. H has a negative coefficient of -0.228 which implies a negative relationship with Y in the short-run. This implies that increase H will lead to destabilization of the country's Y or reduces the nation's Y level in the short-run. Conversely, a fall in H level implies an increase in Y which invariably means increase the total productivity level in the country. However, in the long-run, H has a positive coefficient of 3.091 which implies a positive relationship with Y in the long-run. This implies that increase H will not only lead to stabilization of the country's Y or increase the nation's Y level in the long-run but also, improved the productivity of other sector of the economy. Subsequently, a raise in H financing level implies an increase in Y which invariably means increase the total productivity level in the country. This occurrence might not be far from the possibility that its contribution, in the long-run might have crowded out its short-run negative impact by its influence on other macroeconomic variables in the economy (Rebelo, 1991). Table 6 shows that H significantly effect on Y level in Nigeria. This variable alters the level of productivity thereby decreasing the volume of the nation's Y in the short run. H has a negative and statistically significant

coefficient that an increase causes a depreciation of Y in the short and in the long run, it has positive coefficient that often crowd out the short run effect in Nigeria.

Conclusion

In conclusion, this study uses time series data for the 1990-2016 period and an ARDL estimator to investigate the effect of higher education human capital on the growth rate of per capita income in Nigeria. The study finds that higher education human capital has a relatively large and statistically significant effect on the growth rate of per capita income. This may imply that the reliance on increased physical capital investment as the way to upsurge the growth of income in Nigeria may be misplaced. However, the study did not account for growth losses due to the emigration of highly educated Nigerians. The results differ from results of other researchers who find no significant relationship between higher education and economic growth. The estimation results suggested that increased education human capital at all levels, including higher education, has significantly positive impacts on the growth rate of per capita income in Nigeria. This implies that Nigeria can increase her income growth by increase to her stock of higher education human capital in the long-run. Nigeria government can improve the efficiency of providing higher education. There is evidence of extreme inefficiency in the higher education sub-sector in Nigeria. Also, policy makers in the country should incorporate the use of expatriate in the running and operation of higher education in the country. Furthermore, training of staff of higher institution in the country by incorporating private sector in the financing training in their area of interest. Government should do more in making the sector interesting by putting in place conducive legal and legislative positive that guarantee genuine operation of higher institution education in the country. Finally, it may be necessary to encourage the private sector to become providers of higher education, a process that have started already in the country but strict monitoring must be enforced by the appropriate institution. The study in addition, recommend further study in this

area to validate the findings of this study findings or better still observed some areas of deficiencies in the study.

Reference

- Aghion, P. & Howit, P. (1998). *Endogenous Growth Theory*. Cambridge, MA: MIT Press.
- Appiah, E.N. & McMahon, W. (2002). The social outcomes of education and feedbacks on growth in Africa. *Journal of Development Studies*, 38(4), 27-68.
- Azarriadis, C. & Kelvin, D. (1990). Threshold externalities in economic development. *Quarterly Journal of Economics*, 105, 501-26.
- Bangura, Y. (1994). Intellectuals, economic reform and social change: constraints and opportunities in the formation of a Nigerian technocracy. *Development and Change*, 25(2), 261-305.
- Bank, W. (2013). *Global economic prospectus* (pp. 12- 36).
- Barro, R. J. (1999). Human capital and growth in cross-country regressions. *Swedish Economic Policy Review*, 6(2), 237-277.
- Barro, R. & Sala-i-Martin, X. (1995). *Economic Growth*. New York: McGraw-Hill.
- Barro, R. J. & Sala-i-Martin, X. (2003). *Economic Growth* (2nd ed.). Cambridge: Cambridge, MA: MIT Press.
- Bollerslev. (1986). Generalized Autoregressive Conditional Heteroskedasticity. *Journal of Econometrics*, 31, 307-327.
- Borge, B. (2015). Why education is the key to development. *World Economic Forum*, p. 12.
- Carlos, A. B. (2013). Economic Proposal for Peru on the Policies for Economic Growth, Russia. *Asia Journal of Social Science*, 3, 23-35.
- Dabalén, A., Bankole, O., & Olatunde, A. (2001). Labor market prospects for university graduates in Nigeria,. *Higher Education Policy*, 14, 141-159.
- Devarajan, S., Mongab, C., & Zongoc, T. (2011). Making higher education finance work for Africa. *Journal of African Economies*, 20(3), 133-154.
- Farayibi, A. O. (2015). Linkages among higher education, poverty and economic growth in Nigeria: An empirical investigation. *An International Peer-Reviewed Journal*, 19, 47-55.
- Gradstein, M. & Justman, M. (2002). Education social cohesion, and economic growth. *America Economic Review*, 92(4), 1192-1204.
- Greiner, A. & Semmler, W. (2002). Externalities of investment, education and economic growth. *Economic Modelling*, 10(5), 709-24.

- Gunawardena, C., Kwesiga, J., & Lihamba, A. (2006). *Gender equity in Commonwealth higher education: Emerging themes in Nigeria, South Africa, Sri Lanka, Tanzania, and Uganda* (No. 12104) (pp. 21-45). Uganda.
- Gyimah-Brempong, K. & Mark Wilson, R. (2004). Health human capital and economic growth in Sub-Saharan African and OECD countries. *Quarterly Review of Economics and Finance*, 44(2), 296-320.
- Gyimah-Brempong, K., Paddison, O., & Mitiku, W. (2006). Higher education and economic growth in Africa. *Journal of Development Studies*, 42(3), 509-529.
- Howard, P. & Richard, R. N. (1999). The Asian miracle and modern growth theory. *Policy Research Working Paper. World Bank*, 12, 43-67.
- Jemna, V. D. (2011). Demographic transition and economic growth in Romania. *Journal of Applied Economics*, 20, 103-112.
- Keller, K. R. I. (2006). Investment in primary, secondary, and higher education and the effects on economic growth. *Contemporary Economic Policy*, 24(1), 18-34.
- Kim, S. & Kim, Y. (2000). Growth gains from trade and education. *Journal of International Economics*, 5(2), 519-545.
- Kwabena, G., Oliver, P. A., & Mitiku, W. (2006). Higher education and economic growth in Africa. *Journal of Development Studies*, 42(3), 509-529.
- Loening, J., Bhaskara R., & S. R. (2010). *Effects of education on economic growth: Evidence from Guatemala* (No. 23665). Munich, Germany.
- Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, 22, 3-42.
- Mankiw, N. G., Romer, D. & Weil, D. N. (1992). A contribution to the empirics of economic growth. *The Quarterly Journal of Economics*, 107(2), 407-437.
- Mehmood, B., Khan, A., & Khan, A. (2012). Empirical scrutiny of demographic dividend of economic growth: Time series evidence from Pakistan. *Romanian Review of Social Sciences*, 2, 3-11.
- Pesaran, M. Shin, Y. & Smith, J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16, 289-326.
- Petrakis, P.E. & Stamatakis, D. (2002). Growth and educational levels: a comparative analysis. *Economics of Education Review*, 21(5), 513-21.
- Rebelo, S. T. (1991). Long-run policy analysis and long run growth. *Journal of Political Economy*, 99(2), 500-521..

- Sani, A. I. & Sallahuddin, H. (2015). International remittances and GDP growth in Nigeria. *Asian Journal of Applied Sciences*, 3(3), 1-6.
- Sani, A.I., Sallahuddin, H., & Muhammad, A. (2016). *Exchange rate volatility, external shock, and capital inflows*. Universiti Utara Malaysia.
- Shaihani, M., Harisb, A., Ismaila, N., & S. R. (2011). Long run and short run effects on education levels: Case in Malaysia. *International Journal of Economic Research*, 2(6), 77-87.
- Sianesi B. and Van Reenen, S. (2003). The returns to education: macro-economics. *Journal of Economic Surveys*, 17(3), 157-200.
- Sikiru, J. B. (2011). Long-run relationship between education and economic growth: Evidence from Nigeria. *International Journal of Humanities and Social Science*, 14(1), 123-128.
- Smith, A. (2015). The Inspirer of Modern Growth Theories. *Procedia - Social and Behavioral Sciences Social Science*, 195, 663-673.
- Tiruneh, M. W. & Radvansky, M. (2011). The contribution of human capital to European economic growth: An empirical explanation from a panel data. In *EoMod 2011* (pp. 1-12). Ponta Delgada, Azores: University of Azores.
- Todaro, M. P. (2012). *Social Indicators as alternative measures of development* (9th ed.). New York, London: Longman.
- Tsamadias, C. & Paul, P. (2012). The effect of education on economic growth in Greece over the 1960-2000 period. *Education Economics*, 20(5), 522-537.
- Uzun, A., Kabadayi, B., & Emsen, O. S. (2012). The impacts of external debt on economic growth in transition economies. *Chinese Business Review*, 11(5), 491-499.
- William, S., Teresa, A., Hartnett, B., & Erich, S. (2003). Higher education in Nigeria: A status report. *Higher Education Policy*, 16, 259-281.

Table 1
Descriptive Statistics

Variables	Mean	Std. Dev	Skewness	Kurtosis	J.B	P-Value
Y	1.073	4,271	6.114	73.215	29.058	0.000
H	0.143	1.014	5.104	25.821	10.521	0.000

Table 2

Stationary test results

Variables	With intercept		With intercept and trend	
	Level	1 st Difference	Level	1 st Difference
<i>Y</i>	3.987 (0.882)	-10.092* (0.001)	-6.341 (0.614)	-11.567* (0.001)
<i>y</i>	-4.509 (1.301)	-11.261* (0.000)	-4.309 (1.295)	-10.476* (0.003)
<i>H</i>	-4.337 (1.074)	-10.986* (0.003)	-5.331 (0.642)	-12.113* (0.000)
<i>S</i>	-5.706 (0.981)	-12.651* (0.002)	-3.448 (0.739)	-13.092* (0.004)
<i>P</i>	-3.908 (0.364)	-11.051* (0.000)	-4.973 (1.082)	-12.908* (0.001)
<i>k</i>	-7.211 (1.012)	9.807* (0.000)	5.334 (1.052)	-14.764* (0.000)
<i>Pop</i>	-11.051* (0.000)	-11.051* (0.000)	-11.051* (0.000)	-11.051* (0.000)
<i>PI</i>	-11.051* (0.000)	-11.051* (0.000)	-11.051* (0.000)	-11.051* (0.000)

Note: p-value in () and * denotes rejection of the null hypothesis at five percent respectively

Table 3
VAR ARDL Lag Length Selection Result

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-					
	2262.824	NA	6.61e+08	40.173	40.342	40.242
1	-					
	1119.061	2125.577	19.544	20.797	22.149	21.346
2	-					
	905.022	371.252*	10.113*	17.876*	20.410*	18.904*
3	-					
	876.093	46.593	0.202	18.231	21.948	19.740

Note: * indicates lag order selected by the criterion, LR: Sequential modified LR test statistic (each test at 5% level of significance), FPE: Final predictor error, AIC: Akaike information criterion, SC: Schwarz information criterion and HQ: Hannan-Quinn information criterion respectively.

Table 4
ARDL Optimal Model

Variables	Coefficient	Standard Error	t-statistic	Prob.*
$Y(-1)$	1.049	0.087	12.047	0.000*
$Y(-2)$	-0.141	0.130	-1.080	0.282
y_1	-0.226	0.076	-2.958	0.003*
$H(-1)$	0.244	0.083	2.936	0.004*
S	2.615	1.267	2.064	0.081**
P	0.141	0.061	2.314	0.000**
k	-18.737	5.308	-3.530	0.000*
$Pop(-1)$	16.528	5.384	3.070	0.002*
$PI(-1)$	-1.336	0.366	-3.105	0.002*
C	6.234	3.885	1.606	0.114

Note: * and ** signifies five percent and 10 percent level of significance, respectively.

Table 5
ARDL Co-integration Test Result

Variable	Coefficient	Standard Error	t-statistic	Prob.
$DY(-1))$	0.380	0.077	4.925	0.000*
$DY(-3))$	0.239	0.085	2.812	0.006*
$D(H)$	-0.228	0.077	-2.958	0.004*
$D(S)$	2.235	1.138	1.976	0.041*
$D(P)$	0.143	0.062	2.314	0.068**
$D(k)$	-18.737	5.308	-3.530	0.000*
$D(y_1)$	-1.213	0.364	-3.333	0.001*
ECT_{t-1}	-0.331	0.048	-6.864	0.000*

Note: * and ** indicate significant at five and 10 percent level of significance.

Table 6
Long Run Coefficients

Variable	Coefficient	standard Error	t-Statistic	Prob.
$L y_1$	-0.309	0.085	-3.636	0.051**
LH	3.091	1.561	1.981	0.082**
LS	0.985	0.408	2.415	0.078**

LP	-6.787	2.270	-2.941	0.004*
LPI	-0.323	0.108	-2.990	0.039*
C	15.288	7.315	2.091	0.098

Note: * and ** indicate significant at five and 10 percent level of significance

IMPACT OF JOB DESCRIPTION ON EMPLOYEE'S PERFORMANCE: A STUDY OF USMANUDANFODIYO UNIVERSITY SOKOTO.

¹Fodio Garba, Ph.D and ²Nura Abubakar Allumi, Ph.D

¹Department of Public Administration UsmanuDanFodiyo University, Sokoto,

Tel: +23407065733949, E-mail: gfodiyo@gmail.com

²Department of Public Administration UsmanuDanFodiyouniversity, Sokoto

Tel: +2348069106082, E-mail: nuraallumi@gmail.com

Abstract

Job description is crucial for efficient work performance in any organization, as it plays an important role in the attainment of organizational goals and objectives, because it serve as a nerve that suffices the need of easy and smooth functioning of work which helps in enhancing the quality of work life of employees and organizational development. This paper examines the impact of job description on organizational performance with particular reference to UsmanuDanFodiyo University Sokoto Nigeria. The paper adopts quantitative method to collect data and also used SPSS software version 21 to analyze it. The result reveals that there is positive relationship between job description and organizational performance. The study attributed poor performance to absence or unclear job description. The study therefore, recommends that in order to address the situation and increase performance related to job description, organization should formulate and redesign their job description in line with job specification and made available to staff at the right time, because the findings of the research reveals that such will help in improving and ensuring the attainment of the goals of the University.

Key Words: Job, Role Profile, job analysis, job description, job specification.

INTRODUCTION

The analysis of jobs, roles, skills and competencies is one of the greatest and important techniques in human resource management practice. It provides the information required to produce job description and role profile. Job description is a document that outlines the purpose of the job, the task involved, the duties and responsibilities, the performance objectives and the reporting relationships. It gives details of the terms and conditions, including the remuneration package and hours of work. It is used in the recruitment process and provides the basis for developing workers specification (Edmond & Mike 2013). Job description is an indispensable tool that defines an employee's profile relating to his/ her job. Despite the fact that job description is vital for efficient work performance in every organization, some research work such as Halima (2014) and Michael (2010) has found out that in many organizations employees complain for having ineffective or non-existence of job description. The existence of this problem prompts the researchers to undertake this study.

It is against the above background that this paper intends to investigate the impact of job description in Usmanu Dan Fodiyo University Sokoto, in relation to increasing performance of employee's and attainment of organizational objectives. To do this, the paper is divided into five parts, with part one containing the introduction, part two review both theoretical and empirical literature on job description. Part three covers methodology, while part four presents and analyzes data collected. Part five covers conclusion.

Concept of Job and Roles

The terms 'job' and role are often used interchangeably, but they are different. A job is an organizational unit consisting of a group of defined tasks or activities to be carried out or duties to be performed, while a role is the part people play in their work-the emphasis is on the expected patterns of behavior to achieve agreed outcomes (Armstrong & Taylor 2014). A job consists of a related set of tasks that are carried out by a person to fulfill a purpose. It can

be regarded as a unit in an organizational structure that remains unchanged, whoever is in the job. A job in this sense is a fixed entity, like a part of a machine that can be designed like any other part of a machine. Routine or machine controlled jobs do indeed exist in most organizations but, increasingly, the work embarked upon by people is not mechanistic. What is done and the results achieved depend more or less on the capabilities and motivation of individuals and their interactions with one another and their customers, clients, passengers or supplies (Armstrong, 2012).

The concept of a role conveys these realities more than that of a job. Importantly, a role is the part people play in carrying out their work. Individual roles are those carried out by one person. Generic roles are those similar activities carried out by a number of people. Thus, a role can be described in behavioral terms- given certain expectations; this is how the person needs to behave to meet them. Micheal et' al (2008) viewed a role as an organized set of behavior, the part people play in their work- the emphasis is on the pattern of behavior expected of them in order to achieve agreed outcomes. According to Armstrong (2012) a job is an organizational unit which consists of a group of defined and identified tasks or activities to be carried out or duties to be performed.

Job Analysis

Job analysis and design are important aspects of HRM across organizations. The two concepts are interrelated and supportive of one another. Job analysis and design provide an insight about job contents and the necessary skills needed for the successful completion of the job. It also creates conducive atmosphere for the accomplishment of organizational objectives as well as the needs of employees in the organization. Basically, job analysis and design involves a systematic study of the tasks involved in a particular job and what is required in terms of human skills and knowledge to satisfactorily accomplish the tasks (Mullins, 1996). Job analysis is thus, a process undertaken to determine which characteristics are necessary for satisfactory job performance and to analyze the conditions in which the job is performed, which all

relied on having a comprehensive and detailed job description (Yahaya&Abubakar, 2015). Job analysis is thus, the process of analyzing the content of jobs in order to guide recruitment and selection, identify training needs and for the purpose of job evaluation. Job analysis can be carried out in a number of ways including interviewing job holders and supervisors, observation of work activity, and the completion of a job analysis questionnaire. The result should be an account of the tasks and competencies that comprise a particular job, which can then be used to inform a wide range of HRM practice (Edmund & Noon 2013).

To this end job analysis can be viewed as the detailed and proper study of the elements involved in the job such a job contents, duties, functions knowledge and skills. Thus, job analysis concentrates on what job holders are expected to do or not to do. US Office of Personnel Management (2011) defines job analysis as a systematic process of gathering, documenting and analyzing information about the content, context and requirements of a job. On the basis of these, Herbert & Timothy (2009) argued that job analysis should be used when assessing the accuracy of organizational selection procedures. Consequently, Ivancevich&Konopaske, (2013) contended that a good job analysis most provide the following if it is to be viewed favorably:

1. It should yield a thorough, clear job description
2. The frequency and significance of task behaviors should be assessed
3. It must allow for an accurate assessment of the knowledge, skills, abilities and other features (KSAOs) required by the job.
4. It must yield information about the relationship between job duty and KSAOs. Thus, it most clearly determines which KSAOs are required for each job duty.

In addition to helping organizations satisfy their KSAOs requirements, job analysis is closely tied to HRM activities. It is used extensively as argued by Ivancerich&Kanopaske (2013) in each of the following areas:

1. Recruitment and selection: job analysis information helps recruiters seek and find the right persons for the organizations and to hire the right person, selection testing most assess the most critical skills

and abilities needed to perform a job. All this information comes from job analysis.

2. Training and career development: knowing the skills acquired for a job is necessary to building effective training programs. As such, it helps individual workers to move easily from one career stage to another.
3. Compensation: compensation is tied to the duties and responsibilities of a job. Thus, proper compensation demands accurate assessments of what various jobs entail.
4. Strategic planning: Nowadays, managers are beginning to realize that job analysis is the major tool in an organization's overall strategic planning efforts, effective job analysis can help organizations change and restructure work and work flow processes to meet the changing demands of uncertain environments

Job analysis is made up of two sub-divisions, job description and job specification. Job description is a factual statement and summary of the job contents in terms of duties, relationship with other jobs and personnel requirement of the job. Job specification on the other hand, states the minimum qualifications, job related experience, knowledge, skills and capabilities needed on performing the job (Mullins, 1996.).

Job Description

A job description defines what job holders are required to do in terms of activities, duties or tasks. It is prescriptive and inflexible giving people the opportunity to say: 'it's not in my job description, meaning that they only need to do the tasks listed there (Armstrong & Taylor, 2014). In addition, a job description is more concerned with tasks than outcomes and with the duties to be performed than the competencies required in performing the task. Job description is a document that outlines the purpose of the job, the task involved, the duties and responsibilities, the performance objectives and the reporting relationships. It gives details of the terms and conditions, including the remuneration package and hours of work. It is used in the recruitment process and provides the basis for developing workers specification (Edmond & Mike 2013). Job description is one of the primary aspects provided by a systematic job analysis (Bill, 2007). Simply put, a job description is a written description of what the job entails (Bill, 2007). It is,

however, difficult to overemphasize how important thorough and accurate a job description is to an organization, as it serve as an effective instrument for the realization of organizational goal.

Employee Performance

The success of any organization is closely tied to the job performance of its employee. Thus, employee performance is seen as the related activities expected of a worker and how well those activities were executed. Today, many organizations assess the employee performance of each staff member on an annual or quarterly basis in order to help them identify suggested area for improvement, which is done through performance review (Lyndsey, 2016). Performance review is designed to evaluate how workers are performing in their roles and to identify any areas where training may be required. Many employees felt nervous about their performance review and consider it as a negative meeting designed for their supervisors to reproof them. Although this is not the case, as performance review is a two-way street, an opportunity to discuss how you feel you are getting on in your job and for your manager to also articulate their own views. When it comes to undertaking a performance review, preparation is the key, thus one should be able to express his skills and achievement as part of the process. The following steps should therefore be followed in performance review:

1. Understand the process: In order to prepare for your performance review, it is important that you understand the process. There are various formats performance review can take, including, ratings based, objectives and 360 degree feedback. As the more you understand the performance review process, the better prepared you will be.
2. Compare previous performance review: If you have undertaken a performance review in the past with your employer, it is good idea to take a look at it before you start your preparation. In doing so, you can get a clear understanding of what your objectives were from the previous one and whether you have achieved them. If the performance review is only carried out on an annual basis you will have no doubt forgotten what you discussed during the process.
3. Evaluate yourself and achievement: The performance review is an opportunity for you to express what you feel you have achieved and

to identify any area you wish to improve on. It may be that your boss has the same opinion on your performance or it may be necessary for further discussions and improvement to enable you to reach the goal of the organization.

Writing a Job Description

Job descriptions should be based on the job analysis and should be brief and factual as possible. The headings under which the job description should be written and notes for guidance on completing each section are spelt out by Armstrong (2012) below:

1. **Job Title:** The existing job title should indicate as clearly as possible the function in which the job is carried out and the level of the job within that function. The use of the terms such as 'manager', assistant manager' or 'senior' to describe job levels should be reasonably consistent between functions with regard to grading of the job.
2. **Reporting to:** The job title of the manager or team leader to whom the job holder is directly responsible should be given under this heading. No attempt should be made to indicate here any functional relationships the job holder have to other people.
3. **Reporting to Job Holder:** The job titles of all the posts directly reporting to the job holder should be given under this heading. Again, no attempt should be made to indicate any functional relationships that might exist between the job holder and other employees.
4. **Overall Purpose:** This section should describe clearly the overall purpose of the job. The aim should be to convey in one sentence a broad picture of the job which will clearly distinguish it from other jobs and establish the role of the job holders and the contributions they should make towards achieving the objectives of the organization and their own function or unit. When preparing a job description, it is often best to defer writing down the definition of overall responsibilities until the activities have been analyzed and described.
5. **Main Activities, Tasks or Duties.** The following method of describing activities, tasks or duties should be followed.
 - I. Group the various activities identified by the job analysis together so that no more than seven or eight areas remain. If the number is more than that, then the job description will become complex and difficult to be specific about the activities, tasks or duties.
 - II. Define each activity in one sentence, which starts with a verb in the active voice in order to provide a positive indication of what

- has to be done and eliminate unnecessary wording, for example plan, prepare, produce, implement, process, provide, schedule, complete, dispatch, maintain, liaise with and collaborates with.
- III. Describe what is to be done as clearly as possible, for example, post cash to the nominal and sales ledgers, dispatch packed output to the warehouse, schedule production, ensure that management accounts are produced, prepare marketing plans etc.
- IV. State briefly the purpose of the activity in terms of outcomes, outputs or standards to be achieved. For examples: test new systems to ensure they meet agreed systems specifications, post cash to the nominal and sales ledgers in order to provide up-to-date and accurate financial information, dispatch to the warehouse planned output so that all items are removed or carries on the same day they are packed, schedule production to meet laid-down output and delivery targets, ensure that management accounts are produced that provide the required level of information to management and individual managers on financial performance against budget and on any variances, prepare marketing plans that support the achievement of the marketing strategies of the enterprises, are realistic and provide clear guidance on the actions or in actions to be taken.

Methodology

This study adopted quantitative method using structured questionnaire based on five Likert scale to collect data. The research population covered the 2907 staff of UsmanuDanFodiyo University Sokoto. The respondents covered academic staff, senior non-academic staff and junior staff of the university. There are 1142 academic staff, 812 senior academic staff and 953 junior staff. It is worthwhile to note that out of the 2907 employees at UsmanuDanFodiyo University 341 was selected as the required sample size based on Krejcie & Morgan table of determining sample size in a given research activities, as the table indicates that when the total population is 3000 a sample of 341 will be the required sample size, as the total population of Usmanu DanFodiyo University Sokoto employees was 2907 which is close to 3000, a sample of 341 is taken as the sample size of the study. After getting the required number of the sample size, the research divides the sample size into three stratification based on the categorization of staff (academic, senior non-academics and junior staff) in order to

ensure that all the category of the staff were duly represented. The method that was used in drawing out sampled respondents for the study is stratified sampling technique. In stratified sampling, the sampling frame is divided into homogeneous and non-overlapping sub groups called (Strata) and a simple random sample is drawn within each sub groups (Bhattacharjee 2012). A total of 341 copies of questionnaires were administered out of which 308 copies were filled and returned. Data was analyzed using descriptive and inferential statistics. The analysis was done with the help of SPSS software version 21.

Results

As highlighted above data analysis has been done with the help of SPSS software. After the respondents had filled in the questionnaire, the data was entered into the software and the analysis was made thereafter. The data has been presented in the form of tables and interpretation of each table is provided. The results of the objective of the study hypothesized as ***“There is a significant relationship between job description and organizational performance”***. Thus, the hypothesis was tested using simple regression, Pearson correlation and chi square test.

The model summary results presented in Table 1.2 indicate that the value of F statistics is significant at 1%. This implies that the model is fit to capture the effect of job description on service delivery. However, the value of R² indicates that job description explains only 2% variation in service delivery. This is as a result of other factors that may influence service delivery not captured on the model. These therefore, serve as one of the limitation of this study that ought to be captured by future studies.

Table 1.1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig. (P value)
	0.153	0.023	0.020	0.31	7.29	0.001

Source: SPSS Version 21 Statistic Output

The results of simple linear regression presented in Table 1.2 reveals that job description has a positive and significant relationship with organizational performance at 1% level of significance. This corroborates with the results of Pearson correlation reported in Table 1.2, which reveals that there is positive and significant correlation between job description and organizational performance. Linear regression and Pearson correlation result has an estimated coefficient of 0.15 with significant value of probability of less than 0.01. Whereas, the chi-square analysis on the association between job description and organizational performance using Pearson, Likelihood Ratio and Linear-by-Linear methods shows that job description and organizational performance are less associative since sig. values (p values) are all higher than 0.05.

Table 1.2: Regression Result on the Effect of Job Description on Organizational Performance

Variable	Coefficient	P-value	T-Statistics	Standard Error
Job Description	0.153	0.007	2.700	.053

Source: SPSS Version 21 Statistic Output

Table 1.3 Correlations of Job Description to Organizational Performance

		TJBD_AV	Organizational Performance
TJBD_AV	Pearson Correlation	1	.153**
	Sig. (2-tailed)		.007
	N	308	308
Organizational Performance	Pearson Correlation	.153**	1
	Sig. (2-tailed)	.007	
	N	308	308

Source: SPSS Version 21 Statistic Output

Table 1.3 shows the results of correlation coefficients and coefficient of determination of organizational performance on job description. The results revealed that service delivery and job description has positive correlation and that the relationship is statistically significance at 5% level.

Table 1.4: Chi-Square Test for the Association between Job Description and Organizational Performance

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	138.334 ^a	135	.404
Likelihood Ratio	121.250	135	.796
Linear-by-Linear Association	7.144	1	.008
N of Valid Cases	308		

Source: SPSS Version 21 Statistic Output.

Table 1.4 above shows the result on the association between job description and service delivery using Pearson, Likelihood Ratio and Linear-by-Linear methods. Thus, the results of chi-square tests by Pearson and Likelihood Ratio methods revealed that job description and organizational performance are less associative since sig. values (p values) are all higher than 0.05 but Linear-by-Linear method revealed that job description and service delivery are highly associated.

The outcome of this study is line with the expectation as well as the literature. It corroborated with the finding of Halima (2014) who revealed that job description is needed for increased work performance, while Moses (2012) also found out that the problem leading to poor performance among workers are related to absence or unclear job description. The finding of Michael (2010) reveals that an effective and well defined job description is necessary for the attainment of all organization in respective of whether public or private.

Conclusion

Nigerian Universities in recent years are beset with many problems that make them unable to meet up with their objectives. Although

these problems are many and varied, results from the major findings of this study revealed that problem leading to poor performance among workers is related to absence or unclear job description and can impact negatively on the attainment of the goal of the university. Also, the research found out that job description increased work performance. The study therefore, concludes that HRM practice (job description) in UDUS and other Universities in Nigeria can be improved for the better should the management of UDUS, Government and other stake holders in HRM accept and properly implement the suggested solutions as recommended below: that managers/ administrators should made available to their employees a comprehensive and a clear job description for that is one of the yardstick for the attainment of organizational goals. The study also recommends that in order to address the situation and increased job performance, organizations should formulate effective job description which would include job specifications and be made available to employees at the appropriate time. The study also recommends the need to redesign scheme of service and job description, according to the situation, ensure availability of job analysis and establish an appropriate HR policy to reduce brain drain of qualified employees who look for greener pasture. In addition, the termination of one research may be the beginning of the other. This research work should have covered the whole Nigerian universities, but due to lack of enough time and resources, it was restricted to UsmanuDanfodiyo University, Sokoto. This study therefore, suggests that more research of this nature should be carried out to cover more than one University. Future researches are also needed to use larger sample sizes in order to statistically validates the results of this research and provide a support for the present findings.

References

- Armstrong, M., & Taylor, S. (2014). 'Armstrong's handbook of human resource management practice. London, Kogan Page.
- Armstrong, M (2012). 'Armstrong's handbook of human resource management practice.' London, Kogan Page.

- Bill, L. (2007). (American Dietetic Association, ADA Makes Business Better: HR Magazine', 52, (10), 22-23.
- Bhattacharjee, A., (2012). 'Social sciences research: principles, methods and practices'. Florida: Creative Commons Attribution.
- Edmund, H., & Mike, N. (2013). 'Oxford Dictionary of Human resource management'. New York, Oxford University Press.
- Halima, R.T., (2014). 'Assessing the impact of job description on employee's performance: A Study of Zanzibar Electricity Corporation', *Unpublished PhD Thesis*.
- Herbert, G.H., & Timothy, A.J. (2009). 'Staffing organization'. Burr Ridge, IL, McGraw-Hill
- Ivancevich, J.M. & Konopaske, R. (2013). 'Human resource management'. New York McGraw Hill.
- Lyndsey, M. (2016). Businessdictionary: Retrieved from <http://www.businessdictionary.com/article/1217>. Accessed April 2019.
- Michael, T.M., Ivancevich, J.M., & Konopaske, R. (2008). Organizational behavior and management. Burr-Ridge, IL. McGraw-Hill.
- Mullins, L.J. (1996). Management and organizational behavior. Pitman Publishing Company.
- Krejcie, R.V., & Morgan, D.W., (1970). Determining sample size for research activities. Journal of Educational and Psychological Measurement, 30, 607-610.
- Michael, Z. (2010). Creating a culture of competence. New York, John Willey & Sons, Inc.
- Pritchard, K. H, (2013). Job description writing: A step by step guide. Tanzania Public Service Management and Employment Policy.
- U.S Office of Personnel Management (2011), (<http://www.opm.gov>. Accessed on 1, June, 2011.
- Yahaya, T.B., & Abdullah, A. (2015). 'Foundations of Personnel Management in (eds) S.O. Ilufoye and A. Jimoh, *Foundations of Social Sciences*, Lagos, Malthouse Press Ltd.