

Effect of Marginal Tax Rate on FDI Inflow of Selected African Countries

Stephen I. Ocheni, PhD.

Professor of Public Sector Accounting and
Management, Faculty of Management
Sciences, Kogi State University
Anyingba, Kogi State, Nigeria

ABSTRACT

In this present reality where an increasing number of governments compete hard to attract multinational companies, tax incentives have become a global phenomenon. There exist contending views among the researchers not only on the provision of tax incentives to draw in foreign direct investment but additionally on the viability of the foreign direct investment (FDI) in augmenting tax revenues. Hence, the goal of this research is to empirically examine the effect of marginal tax rate on FDI of selected African countries. Data collection was the analytical work on the behaviour of foreign investors towards tax incentives in Africa which is based on a large Afro barometer Survey which was collected in 2013, 2014, and 2017 in 12 selected African countries. The interviews are based on more than 143 face-to-face interviews in 2013 and 2014 and 157 in 2017. The survey used a clustered, stratified, multi-stage probability sampling design. The data was analyzed using Statistical Package for Social Science (SPSS) version 21. The descriptive statistic, factor analysis, correlation matrix and finally, hierarchical multiple regression analysis were carried out. The result revealed that tax incentive has a significant effect on FDI inflow of selected African countries. It was also discovered that efficient Tax incentives determinants have a significant relationship with Returns on Investment in the African countries. The paper, therefore, recommends that, for African countries to attain the efficiency of their policy, such tax incentive determinants need to be given due consideration.

Keywords: Africa, Determinants, Foreign Direct Investment, Tax incentives.

INTRODUCTION:

The economic recession which most African economies are trying to recover from its shock has not only thrown Foreign Direct Investment Inflow (FDI) into a quagmire but has also increased the mortality rate of the small-scale enterprises. This is a result of unobtrusive upsurge among African countries. According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), 80% of SMEs die before their 5th anniversary (Efflok, Tapang & Eton, 2013). Among the components responsible for these unfavorable close-ups of these SMEs and multinational companies are tax-related issues, ranging from multiple taxations to enormous tax burdens and lack of tax incentive.

There is a dire need to give the required empowering environment for the development of FDI Inflow in developing countries so that they could adequately play the role expected of them in economic transformation by encouraging the inflow of foreign direct investment. Countries like South Africa, Egypt, Morocco, Africa, Tanzania, Zambia, Uganda, Tunisia, Ethiopia, Sierra Leone and Kenya queue up in this regard to woe investors into their respective countries. Currently, these countries scramble to attract foreign direct investors for the reason that growing protractible and quick economic structure of African countries depends radically on the volume and velocity of their investments.

Nevertheless, many developing economies suffer from low domestic saving leading to a huge gap between savings and investments. In fact, the domestic savings and investments in African countries are not in the long run equilibrium, necessitating large capital flows into the continents. In addition, many of the African countries' debt indicators are showing a decline mainly due to prudent debt management. This necessitated the inflow of FDI as an alternative source of capital. FDI is perceived as a fulcrum of development as it can conceivably create productivity overflows for the host economy, enhance the volume of investment and its proficiency, grow the current stock of knowledge, enhance access to cutting-edge technology, generate chains of new indigenous suppliers, and unlimited access to new markets.

However, there exist contending views among the researchers not only on the provision of tax incentives to attract FDI and to boost SMEs but also on the efficacy of the FDI in augmenting tax revenues. Tax incentives are seen as an erroneous policy that can trigger large revenue losses for governments, promote harmful tax competition in the region and should not be an instrument to attract FDI (Amanuel, 2014). The fact has shown that Nigeria, Uganda, Tanzania, and Rwanda are losing up to US\$2.8 billion annually from tax exemptions and incentives. Conversely, not all of these mechanisms are bad. VAT reductions, for instance, can help reduce poverty.

Therefore, the paper- the momentum effect of marginal tax rate on FDI inflow of selected African countries is designed to examine marginal tax rate affect FDI inflow of selected African countries. A marginal tax rate in this context is seen as tax incentive because it is the tax rate that will apply to the next marginal/incremental amount of income or deductions (incentive). In particular, the goal of this research is to examine the effect of tax incentive on FDI inflow of selected African countries. The paper is further organized into sections.

LITERATURE REVIEW:

(Haiyambo, 2013) posits Marginal effective tax rate as the marginal/incremental amount of income or deductions that are used to measure a person's total tax obligation relative to his/her income. The marginal effective tax rate is a precursor to the tax incentive. This implies that tax incentive has a better chance of increasing investment expenditure which is indispensable in enlarging production possibilities and attaining a sustainable improvement in the standard of living of the people. In this framework, Marginal tax rate means harmonized tax rate which is aimed at attracting FDI.

Tax incentives can be targeted on the low-income earners, local and developing industries, farmers, which will increase their savings and is necessary for higher investment (Philips, 2010). Tax incentives provide employment opportunities for the general population, battles economic depression and inflation, hence, expanding the equitable distribution of income and wealth.

(Fletcher, 2003) sees tax incentives as those unusual exclusions, exemptions or deductions that provide particular credits, special tax rates or deferral of tax liability. This implies that it can take the form of tax holidays, investment allowances and tax credits, accelerated depreciation, special zones, investment subsidies, tax exemptions, reduction in tax rates, indirect tax incentives any other forms of reduction in the amount of presupposes taxable income .

Tax incentives are meant to encourage and stimulate the economic activities of enterprises and investments (Kaplan, 2001). It implies that government can use them as a fiscal policy to revive, rehabilitate and stabilize individuals and corporate bodies. It can also be utilized by the government to channel some particular economic activities towards the strategic sectors of the economy where they are not felt or non-existed.

Tax incentives will not only generate employment but will motivate the self-employed to incorporate into limited liability companies, and there is no doubt that this will lead to improved profitability of the firm. The economy can be healthy through generous tax incentives to corporate tax payers, to projects, the profitability of which may not likely materialize until about firms to three years (Henok, 2014).

THEORETICAL FRAMEWORK:

In order to explain the relationship between the tax incentives and financial performance, the study will be anchored on normative theory. Normative Theory was propounded by Daniel Bernoulli in 1738. This Theory postulates that each incentive has merits and demerits, and hence, hard to decide a set of incentives which work for different economies with various difficulties and conditions. He further observed that any advantage, for example, an incentive allocated by politicians or public workers is potentially open to corruption and manhandle (abuse). There is consequently a solid contention that incentives ought to be accessible to all investors who meet an agreed and standardized criteria. However, an alternative position posits that firms should possess simply enough incentive to prompt them to invest, and no more. Every potential investment subsequently needs to get an incentive with respect to its specific circumstance.

EMPIRICAL STUDIES:

The influence of tax incentive on FDI inflow has attracted the attention of several studies as previous studies concentrated more on the determinants of tax incentive and its impact on the FDI. In recent times, emphases have been shifted on African continent and impact on her economies. The studies on tax incentive for Africa include those of (Van Parys & Klemm, 2011), (Mosioma, 2009), (Hussain & Kabibi, 2012), (Demirhan & Masca, 2008), (Action Aid, 2014), amongst others who researched on tax incentive in African countries.

Blomström and Kokko (2003) establish that the utilization of investment incentives concentrating only on foreign firms is for the most part, not a productive method to develop national welfare. The potential spillover benefits are realized only if local firms have the ability and motivation to invest in absorbing foreign technologies and skills.

Contrary to Cover (2010) who maintains that corporate income tax rate had a significant impact on FDI inflows in OECD members for the specified period. In support of his findings, Van Parys & Klemm (2011) who carried out research on the Empirical evidence on the effects of tax incentives found a significant impact of incentives, maintain that none of the tax incentives is effective in boosting gross private fixed capital formation.

A study on the role of tax incentives in encouraging harmful tax competition in the East African Flower industry discovers that tax incentives attract/ maintain mobile capital and do not provide a sustainable basis for creating jobs or achieving any tangible economic development (Mosioma, 2009). On the other hand, (Anyanwu, 2012) in his study found that there is evidence of a partial race to the bottom. Countries had been under pressure to lower tax rates in order to lure and boost investment. Similarly, in estimating a cross-sectional econometric model, it was found that growth rate of per capita; telephone main lines and degree of openness have a positive sign and are statistically significant (Demirhan&Masca, 2008).

Overall lower tax rate increase Africa's competitiveness in the region but undermine the harmonization of trade and investment regimes across the sub-region through initiatives such as the ECOWAS Common External Tariffs (CET) (Action, 2014). Conversely, the study of (Cleeve, 2008) showed that traditional factors such as large market size, good infrastructural development, high skills level, and relative wealth and labour costs were important determinants of FDI inflows. There is no doubt that tax rates have a significant relationship to FDI and economic growth (Efflok, S., & Eton, 2013).

Similarly, the study carried out by (Babatunde and Adepeju, 2012) demonstrated that there is a significant impact of tax incentives, accessibility of natural resources and receptiveness to trade on FDI in the oil and gas sector in Nigeria. Additionally, there is no significant impact of market size, macroeconomic stability, infrastructural development and political risk on FDI in the oil and gas sector in Nigeria. Contrary, it was discovered that the government of Kenya is giving an extensive variety of tax incentives to businesses to draw in more noteworthy levels of FDI into the nation (TJN-A & AAI, 2012). The study showed that such tax incentives lead to very large revenue losses and are anyway not needed to attract FDI in African countries.

The Impacts of Taxation on Investment Decisions: The Case of Morocco was done by (El Ha & Zenjari, 2012) and found that, although taxation is not the most important determinant of investment, it has a major impact on its competitiveness and its net profitability. (Curtis, 2014) maintains that the current tax incentives are resulting in massive revenue losses for Sierra Leone. They estimated that the government lost revenues from customs duty and Goods and Services. In the impact of tax incentives to stimulate investment in South Africa, (Estian, 2013) establishes that general tax incentive such as marginal corporate tax rate triggered output to the manufacturing sector in South Africa.

METHODOLOGY:

Data collection was based on a large Afro barometer Survey, collected in 2013, 2014, and 2017 in 10, 11 and 12 African countries, respectively. The data were collected in rounds 1, 2 and 3. The first round was conducted in 2011. The interviews were based on more than 135 face-to-face interviews in 2013 and 2014 and 146 in 2017. The survey uses a clustered, stratified, multi-stage probability sampling design. The purpose is to make the sample representative of all respondent of a given country. This data has crucial information on those incentives that can attract foreign direct investors reported by interviewed respondents, which serve as a basis for our econometric analysis. The data were analyzed using SPSS version 21, After the factor analysis, the items remain for each variable certified the requirement of factor analysis, such as KMO >0.5, Bartlett's test of Sphericity $p < 0.05$ or smaller, communalities >0.5, factor loading above >0.5 (Hair et al., 2010), as you can see the factor loadings and the Cronbach alpha of the variables in table 2. Correlation matrix has been carried out, and lastly, hierarchical multiple regression analysis was then conducted.

ANALYSIS OF REGRESSION RESULTS:

Table 1 exhibits the mean and standard deviation for the three rounds of the Afrobarometer survey. Most countries are generally inclined to support the idea of the tax incentive, and there seems to be little change in their views over time. However, this interpretation has a caveat because our data is not a panel and this average view is a view of different individuals at different points in time. It does not mean that the responses given by specific individuals have not changed. Hence, our interpretation here should be taken as a broad/average indication of the propensity of tax incentives by the African countries at the three data points we observed. There is a gender balance in the sample with 50 percent of respondents being male. The average age of individuals is 36 years with modest variation.

Table 1: Summary statistics

S/N	Variable	2013		2014		2017	
		mean	std	mean	Std	mean	std
1	Age	36.3	14.8	36.6	14.8	2013	14.5
2	Male	0.51	0.49	0.50	0.50	36.3	0.50
3	Educated	0.35	0.48	0.35	0.47	0.20	0.46
4	Secondary	0.42	0.19	0.41	0.49	0.33	0.50
5	Business	0.13	0.34	0.14	0.35	NA	NA
6	Professional	0.10	0.30	0.02	0.15	NA	NA

Table 2: Results of Measure Validation

Items	Factor Loadings	Cronbach Alpha
Direct Investment inflow(DII)	0.64-0.79	0.79
Tax incentive(TI)	0.87-0.95	0.80
Efficient Tax incentives determinants (ETID)	0.60-0.80	0.71

Table 2 above provided the results for both factor loadings and Cronbach alpha; it can be seen from the Table that the factor loading of the variables ranges from 0.60-0.95. Hence, it is an indication of construct validity. The Cronbach alpha value indicates the constructs reliability because the values range from 0.71-0.80. Hence is indicating that scales of all measures appear to produce internally consistent results.

Table 3: Correlation Matrix

Items	DII	FDI	ETID
Direct Investment inflow(DII)	1		
FDIinflow(FDI)	.343**	1	
Efficient Tax incentives determinants(ETID)	.281**	.318**	1

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

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

The correlation analysis of the variables under study was subjected to a two-tailed test of statistical significance at two different level; significant ($p < 0.01$) and significant ($p < 0.05$). Table 3 above shows that correlations between all variables under study are statistically significant at ($p < 0.01$) respectively. It can also be seen from the same table 3 that the correlation of the variables ranges from 0.281 to 0.343. Hence, the problem of multicollinearity is not there.

Table 4: Hierarchical regression result of the Marginal Tax Rate Momentum on FDI Inflow of Selected African Countries

Independent	Dependent Variable: DII		
	Step 1	Step 1	Step 1
TAX INC(TI)	.247 (.002)	.222 (.004)	.223 (.003)
Interactive Terms: Enhancing Var. Efficiency of Tax incentives determinants(ETID)		.254 (.000)	.138 (.000)
Tax incentive xFDI inflow			-.157 (.000)
R2	.262	.321	.369
Significant P<	***0.01	**0.05	*0.1

Table 4 above displayed the result of regression analysis of the relationship between a Tax incentive and Returns on Investment and the moderating effect of Efficient Tax incentives determinants. Tax incentive has significant positive relationship with Returns on Investment ($\beta = .247, t = 3.100, p = .002$). This implies that the more efficient Tax incentives determinants, the greater FDI inflow will be. Hence, those African countries that enhance Tax incentives determinants can easily find it easier to achieve their respective objective which is to enhanced returns on investment. This finding is in line with the findings of (Cover, 2010) who found that that corporate income tax rate had a significant impact on FDI inflows in OECD members for the specified period. At the same time, in order to achieve effective FDI inflow in the African countries, the tax incentive is the main driver & determiner because it has an influence on Returns on Investment in the African countries. Hence, H1 is supported. Equally, table 4 above revealed the significance of the Marginal Tax Rate Momentum on FDI Inflow of Selected African Countries ($\beta = -.157, t = -4.378, p = .000$). This finding entails that, countries that grant Tax incentive would also need the strong support of efficiency in the determinants of tax incentives that would assist in the effectiveness of FDI. This is in line with prior studies. The finding revealed that tax incentives enhance the relationship between FDI inflow and Returns on Investment in the African countries Thus, H2 is supported.

CONCLUSIONS:

This study provided the empirical evidence of the moderating effect of Efficient Tax incentives determinants on the relationship between a Tax incentive and Returns on Investment in the public sector using the perception of the management team of selected companies in the African countries. The result of the study revealed that the tax incentive is significantly related to FDI inflow in the African countries. Also, in conclusion, is the fact that it enhances the relationship between FDI inflow and Returns on Investment in the African countries. The paper, therefore, recommends that, for African countries to attain the efficiency of their policy, such efficient Tax incentives determinants need to be given due consideration.

REFERENCES:

Action Aid. (2014). *Investment Incentives in Ghana: The cost Socio-Economic development*. Research Report .
 Amanuel, M. W. (2014). Factors Affecting FDI Flow in Ethiopia: An Empirical Investigation. *European Journal of Business and Management*, 6(20).
 Anyanwu, J. C. (2012). Why DoesFDI Go Where It Goes?: New Evidence From African Countries. *Annals of Economics and Finance*, 13(2), 425.
 Babatunde and Adepeju, S. (2012). The Impact of Tax Incentives on FDI in the Oil and Gas Sector in Nigeria. *Journal of Business and Management*, 6(1), 01-15. Retrieved Nov. - Dec. 2012
 Cleeve. (2008). How effective are fiscal incentives to attract FDI to Sub-Saharan Africa? *The Journal of Developing Areas*, 42(1), 135-153.
 Cover, Y. (2010). The Impact of Corporate Taxes on Foreign Direct Investment. *Bachelor Thesis in international Ec*.
 Curtis. (2014). Losing Out - Sierra Leone massive revenue loss from tax incentives.
 Demirhan, E., & Masca, A. (2008). Determinants of FDI inflow to developing countries: A cross-sectional analysis. *Prague economic*.
 Efflok, S., S., T., & Eton, O. (2013). The Impact of Tax Policy and Incentives on FDI and Economic Growth: Evident from Export Processing Zones (EPZs) in Nigeria.

- El Ha, H., & Zenjari, A. (2012). The Impacts of Taxation on Investment Decisions: The Case of Morocco. *International Academy of African Business and Development (IAABD)*.
- Estian, C. E. (2013). The impact of tax incentives to stimulate investment in South Africa. *Stellenbosch Economic*, 19(13).
- Fletcher, K. (2003). *An Evaluation of Marginal Effective Tax Rates on Domestic Investment in South Africa between 1994 and 2002*. MA thesis, University of Witwatersrand.
- Haiyambo, E. (2013). Tax Incentives and Foreign Direct Investment: The Namibian Experience. *A Thesis submitted to Harold Pupkeitz, Graduate school of Business Polytechnic of Namibia*.
- Henok, G. T. (2014). Determinants and Impediments of FDI in Ethiopia- A Firm-Level Investigation Catholic University of the Sacred Heart.
- Hussain, & Kabibi, K. F. (2012). Determinants of FDI Flows to Developing Countries. *SBP Research Bulletin*, 8(1).
- Kaplan, D. (2001). Rethinking Government Support for Business Sector R&D in South Africa: The Case for Tax Incentives. *The South African Journal of Economics*, 69(1), 72-73.
- Mosioma, A. (2009). Tax Competition: The role of Tax incentives in encouraging harmful tax competition in the East African Flower industry Tax Justice Network for Africa.
- Philips, E. (2010). *Tax Incentive and employment opportunities in an economy*. Washington, DC: World Bank.
- TJN-A, & AAI. (2012). *Africa Tax Competition in East Africa: A race to the bottom?*.
- Van Parys, A., & Klemm, A. (2011). Empirical evidence on the effects of tax incentives. *Int Tax Public Finance*.
