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Proposed Value Added Tax Increment in Nigeria: the Concern of Small Scale Enterprises in Abeokuta Metropolis

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Abstract

Government uses tax as a source of revenue. However, the effort of federal government in Nigeria to raise Value Added Tax (VAT) from 5% to 10% increases vulnerability of Small Scale Enterprises, most especially those in Abeokuta. This study therefore attempts to evaluate the prospect of this increment, from the perspective of Small Scale Enterprises, on business operations. A sample of 175 registered small scale enterprises in Abeokuta Metropolis was selected and systematic sampling adopted to select every 5th observation. The study uses probit version of ordinal logistics model and all analyses are conducted at 5% level of significance. The finding reveals that probability of small scales' income generation will decrease with tax payment and cost of production when the increase in VAT is effected. The study concludes that proposed VAT increment in Nigeria will detrimentally impact upon the operations of small scale enterprises in the country. It is therefore recommended that palliative measures like business grants should be introduced for Small Scale Enterprises to cushion the effect of the potential increment on their operations.

Keywords: *Tax increment, Small scale enterprise, Abeokuta metropolis*

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Background to the Study

The increase in public revenue, perhaps a rise in its sources, ensures more availability of funds for government. These funds can be used by government to influence economic and social development in the country. However, the recent drop in price of oil in international market and demand for Nigerian crude oil has caused decrease in revenue generation capacity of Federal government. Therefore, federal government turns attention to an increase in taxation as alternative way to boost her revenue generation. Conspicuously, part of this deliberate attempt is the proposed increment of Value Added Tax (VAT) in Nigeria from 5% to 10%. VAT is levied at every stage of manufacturing and consumption activities of goods and services unless items specifically exempted by law.

However, the chunk of manufacturing and consumption activities in developing economies like Nigeria is provided by Small Scale Enterprises in Nigeria. In fact, Small Scale Enterprise are regarded as the engine of growth in any economy (Saka, 2015; Adebisi and Gbegi, 2013; Adebiyi, 2012; Oyelaran-Oyeganlu, 2007; Olorunshola, 2003; Udechuckwu, 2003). Already, this category of business is faced with many problems among which is poor access to infrastructural facilities like power, poor financing, management and accounting problems. Thus, increasing VAT in Nigeria may make Small Scale Enterprises more vulnerable to business failure.

While the proposed increase in VAT seems to be beneficial to the federal government in terms of improving her tax base, it remains difficult to be perceived as welcome development to Small Scale Enterprise in the country. The study specifically uses Abeokuta, the capital of Ogun State, as the study area. Little or no empirical research works on VAT, as known to the researcher, have been conducted to evaluate how and in what direction proposed VAT increment affect the operation of Small Scale Enterprises in Nigeria. Finding answers to these issues regarding the proposed increment is the main trust of this paper. The rest of the paper is divided into four sections. Section two is on review of related literature. Section three is on data and research methodology. Section four is on findings and discussions while Section five concludes and makes recommendations.

Literature Review

Taxation as a component of government fiscal policy is a system of levying compulsory payment on every eligible citizen and business organisations in a country. Accordingly, it is a source of revenue to the government both in developed and developing or underdeveloped countries. A form of this is indirect tax which is levied on goods and services rather than individual as direct tax operates. Value Added Tax (VAT) which was introduced in Nigeria in 1993 through the promulgation of Value Added Tax Decree No. 102 of 1993 serves as a replacement for Sales Tax. VAT is a consumption tax payable on the goods and services consumed by any person, whether government agencies, business organizations or individuals (Tony, 2015).

Historically, the VAT rate in Nigeria from inception till date stands at 5%, the lowest in ECOWAS region (International Monetary Fund, 2016). Attempts have been made over the years to increase this rate, for instance, Onaolapo, Aworemi and Ajala (2013) gathered that the rate was increased to 10% on May 23, 2007 but Nigerians overwhelmingly rejected the

hike with Labour congress five days strike which eventually jeopardized the economy. Although VAT rate inNigeria has been determined in a way that minimizes disincentive efforts on economic activities (Owolabi and Okwu, 2011) any attempt to increase the rate seems to aggravate worst conditions of Small and Medium Scale Enterprises in Nigeria. Already, SMEs in Nigeria are plagued with infrastructural problems, poor financing, low markets and unfavorable environmental conditions especially security (Saka, Ogunseye and Bada, 2015; and Omoyibo and Akpomera, 2012). Therefore, an attempt by government to increase tax rate without providing palliative measures to Small Scale (business as considered engine of growth in an economy) negates equity principle put forward by Adam Smith (1776). Again, the productivity theory of taxation which implies that imposition of tax should not be seen as discouragement to productive activities may be violated given poor condition of SMEs in Nigeria.

There are very rare empirical studies conducted regarding impact of VAT on SMEs growth less talking about studies linking prospect of proposed increase in VAT with SMEs operation in Nigeria. However, a very related is the work of Owolabi and Okwu (2011) where the joint authors as contained in Adereti, Adesina and Sanni (2011) empirically evaluated the contribution of VAT to the development of Lagos State economy. Development aspects considered by the study included infrastructural development, environmental management, education sector development, youth and social development, agricultural sector development, health sector development and transportation sector development. Result showed that VAT revenue contributed positively to the development of the respective sectors. However, the positive contribution was statistically significant only in agricultural sector development. The findings of Okoye and Gbegi (2013) revealed that revenue generated through VAT has a significant influence on wealth creation in Nigeria. The study used secondary data with Pearson moment correlation coefficient and student t-test as methods of analysis.

Methodology
Research Design
The study uses questionnaire and interview methods to obtain the concerns of the Small Scale Enterprises in Abeokuta metropolis regarding the potential increase of VAT rate to 10% from previous 5%. A sample was obtained having established total number of registered Small Scale Enterprises in Abeokuta which stands at 320 (Ogun State Chamber of Commerce, Industry, Mining and Agriculture, (Ogun CC//MA 2015). A systematic sampling was used to select every 5th registered Small Scale Enterprise approached during the survey. The researcher had access to places of operations of registered Small Scale Enterprises in the city through their office addresses as contained in the business register maintained by Ogun CCIMA. An ordinal regression with 5% level of significance was employed for the analysis.

Population of the Study
The population of the study comprises of all 320 registered Small Scale Enterprises as put forward by OgunCCIMA (2015). Small Scale Enterprises in the study area include manufacturing, service providers, provision stores/supermarkets, artisans and other retailing outlets.

Sample and Sampling Technique

As the population stands at 320 Small Scale Enterprises, the study thereby, obtains a sample of 175 following sample size determination formula recommended by Krejcie and Morgan (1970) for a known population.

The formula is given as thus;

$$S = \frac{X^2\, NP\, (1-P)}{d^2\, (N-1) + X^2 P\, (1-P)}$$

Where s = sample size; X^2 = table value of chi-square at 1 degree of freedom for desired confidence level (0.95); N = population size (320); and P = population proportion (0.5)

Furthermore, in order to create representative probability-based selection, the study employed systematic sampling procedure to select every 5th Small Scale Enterprise using their address books. A well-structured questionnaire was administered among sampled Small Scale Enterprises who represent the respondents of the study. The study with proper monitoring recovered a complete 126 questionnaires, thus, yielding a recovery rate of 72%.

Method of Analysis

In line with the model of the study, ordinal probit model was employed for econometrics analysis. Ordinal probit model is a form of logistic regression, nonlinear regression method. All analyses are conducted at 5% level of significance.

Model Specification

In line with the literature and theories on taxation, the study followed ordinal logistics regression process to model the relationship between dependent variable adopted and its predictors. The ordinal regression model is the most appropriate model for ordinal outcomes, (Long2012). Therefore, an ordinal model was adopted from Long (2012) and subsequently adjusted to suit the content of this study.

$Pr(y \leq j/x) = \Lambda\, (rj - \beta o - X'\beta)$ for j = 1, J – 1.......................................

X_i = regressors (independent variables)
Γ = threshold; β_o = intercept; β = coefficients of regressors

Λ = is a cumulative distribution function (CDF), it represents the probability that a random variable e_i will be as small or smaller than $b_o + b_1 X_i$

j = lowest response category for Dependent Variable; J = highest response category for Dependent variable

After calibration, the model implicitly becomes;
$SSR = f(VAT)$
$Pr\,(SSR \leq j | VAT) = \Lambda\, (r_j - \beta_o - X'\beta)$ for j = likert scale, where j varies from 1 to 5

$Pr\,(SSR \leq j\,|\,VAT) = \Lambda\,(r_j - \beta_o - X'\beta)\,for\,j = likert\,scale,$
$Pr\,(SSR \leq 1\,|\,VAT) = (r_1 - \beta_o - (X_1\beta_1 + X_2\beta_2)$
$odds\,ratio = exp^{-(\beta x)}$

Explicitly as;
$$Pr\,(SSR \leq 5\,|\,VAT) = (r_1 - \beta_o - (TAP\beta_{tap} + COP\beta_{cop})$$

$SSR = Small\,Scale\,Revenue$
$VAT = Value\,Added\,Tax$
$TAP = Tax\,Payment\,(VAT\,of\,10\%); \beta_{tap} = coefficient\,of\,TAP$
$COP = Cost\,Price; \beta_{cop} = coefficient\,of\,COP$
$\Gamma = threshold; \beta_o = intercept;$
$\varepsilon = stochastic/error\,term$

A Priori Expectation
The study expects the predictors in this model to have negative relationship with Small Scale Enterprises revenue generation. Mathematically, *a priori* expectation is stated as;
$\beta_{tap}\,and\,\beta_{cop,} < 0$

Presentation, Interpretation and Discussion of Results
Non-violation of any econometric assumptions makes the result of findings more reliable, Tabachnick and Fidell (2007). Therefore, it is important to test for violation of possible assumptions of logistic regression employed for this study.

Test of Logistic Regression Assumptions
(i)   **Non-parametric test:** In order to confirm that the data for the study is non-parametric as logistic regression demands a test was conducted to this effect. The results in Figure 1 confirm that the data is non-parametric.
(ii)   **Multicollinearity**
         Logistic regression does not make assumptions concerning the distribution of scores for the predictor variables; however, it is sensitive to multicollinearity (Garson, 2011). The study therefore conducted Spearman's Correlation statistics for all the predictors used in formulated models. Table 2 in the Appendix shows that all the predictors in the model, expect with dependent variable, showed significant correlation coefficients values less than 0.3 with one another. This shows no or weaker presence of multicollinearity among the regressors, see Tabachnick and Fidell (2007).
(iii)   **Sample Size Adequacy**
         Pedhazur (1997) as cited in Garson (2011) recommended that sample size should be at least 30 times the number of parameters. In line with this, the sample size drawn for the study is adequate given 3 parameters and sample size of 175 out of which 126 were valid for analysis.

Presentation of Results
Table 1: Estimated Ordinal Regression

Variable	Coefficient	Exp(β)	Probability (%)	Sig.
TAP	-.157	.855	14.5	.000
COP	-.038	.963	3.7	.003
Model fitting (Chi-Square)	15.562			.005
Goodness of fit	29.222			.968

Source: Author's Computation from SPSS Outputs, 2016

Interpretation and Discussion of Results
Information in Table 1 above reveals probit (ordinal) logistic regression estimation. Probit version of logistic regression requires interpretation of estimation with probability (Long, 2012). It is discovered from Table 1 that probability of more revenue generation by Small Scale Enterprises will reduce due to potential increase in tax payment as a result of VAT upswing to 10%. Similarly, probability of revenue generation will decrease with potential increase in prices of goods and services. This result is in line with the a priori expectation of the study as theory posits that an attempt by government to increase tax will automatically increase the price of goods and services which in turn affects demand and ultimately discourages investment. The predictors to explain possible effects of proposed VAT to 10% are statistically significant at 5% level of significance.

Moreover, information in Table 1 also shows that the study model with predictors is better than a model without predictors. This is informed by probability value of model fitting information in both Table 1 and Table 3 (Appendix). The data obtained for the study is best fitted to the model, information in Table 1 and Table 4 support this.

Conclusion
An increase in VAT has been one of the forefront considerations of the federal government of Nigeria in recent times to boost her revenue generation. However, the finding of this study reveals that such move will have negative effect on Small Scale Enterprises revenue generation due to possible increase in tax liability and reduced sales volume as a result of potential hike in prices of goods and services. The study therefore concludes that proposed increase in VAT by federal government of Nigeria will add more woes to already worsened conditions of Small Scale Enterprises in the country especially those established in Abeokuta metropolis.

Recommendations
Based on the above conclusion, the study thereby recommends the following;
(I)   There is need for government to improve infrastructural and developmental facilities that will stimulate economic growth in order to achieve the objectives of VAT increment.
(ii)   Palliative measures like business grants should be introduced for Small Scale Enterprises to cushion the effect of the potential increment on their operations.

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APPENDIX
Figure 1: Non-Parametric Test

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of SSR occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
2	The categories of TAP occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
3	The categories of COP occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Table 2: **Correlations**

			SSR	TAP	COP
Spearman's rho	SSR	Correlation Coefficient	1.000	.536	.640
		Sig. (2-tailed)	.	.009	.000
		N	120	113	112
	TAP	Correlation Coefficient	.536	1.000	.023
		Sig. (2-tailed)	.009	.	.013
		N	113	119	112
	COP	Correlation Coefficient	.640	.023	1.000
		Sig. (2-tailed)	.000	.013	.
		N	112	112	118

Source: SPSS Output, 2016

Table 3: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	77.856			
Final	77.295	15.562	2	.005

Link function: Logit.

Source: SPSS Output, 2016

Table 4: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	29.922	46	.968
Deviance	33.668	46	.912

Link function: Logit.

Source: SPSS Output, 2016

Table 5: Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.
Threshold	[SSR = 1.00]	4.372	1.550	7.955	1	.005
	[SSR = 2.00]	3.842	1.506	6.505	1	.011
	[SSR = 3.00]	2.121	1.450	2.139	1	.144
	[SSR = 4.00]	-.370	1.435	.066	1	.797
Location	TAP	-.157	.217	.523	1	.000
	COP	-.038	.257	.022	1	.003

Source: SPSS Output, 2016