Value Added Tax as a Tool for National Development in Ethiopia

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Abstract
Ethiopia aspires to be a middle income country by 2020. And to meet such aspiration, sufficient amount of revenue is required for the purpose of social, economic and political development. Ever since 2002, the Ethiopian governments have tended to continue its taxing reform package with targets for attaining such outlined issues. To that extent, replacement of the outdated sales tax that operated for about four decades with that of Value added tax (VAT) is one of the main pillars and land mark of such reform. This paper therefore discusses how VAT becomes a tool for national development in Ethiopian context from its adoptions (2003) to 2012. Consequently, the OLS method is applied to investigate the relationship between VAT and national development in terms of GDP. In doing so, the annual quantitative time series data sourced from the Ethiopian Revenue and Custom Authority (ERCA), Ministry of Finance and Economic Development (MOFED), and Ethiopian Economic Associations (EEA) was employed. This research work is both descriptive and inferential in nature that analyzed by both SPSS statistical package version 20.0 and Stata/SE version 11.0. The descriptive finding revealed that, after the adoptions of VAT, the GDP growth rate alarmingly increased and reached about 21.9% on average and the average ratio of VAT revenue to that of GDP was 2.95%, while the growth rates of VAT itself was 66.27% on average. In addition to that, the OLS findings showed as the Ethiopian National development is significantly influenced by the VAT revenue with β1 of 23.500. So, the study concluded that VAT itself was 66.27% on average. In addition to that, the OLS findings showed as the Ethiopian National government should make a full-fledged effort to efficiently collect and effectively utilize such tax revenue through closing the door to corruptions and creating harmonized cooperation’s at different levels which can be possible through making the VAT administrations more fashionable than ever before.

Keywords: Value Added Tax (VAT), National Development, Gross Domestic Products (GDP), Ethiopia

1. INTRODUCTION

Every country of the world wants to generate large amount of revenue to boost their level of Economic growth and national development. This is because of that both the government and revenue were hand and glove or they are the two sides of one coin as there is no government without enactments of different revenues.

From unenlightened period to date, it is totally agreeable among the opposition parties and the followers of the higher authority’s policy that the government should take some amount of money from its citizens as far as it is fair and based on their ability to contribute to undertake the necessary social welfare, political and economic activities for its country. The reason is that, if the government has no revenue, there is no infrastructural achievement in rural, semi-urban and urban areas. Particularly in the countries where most of the populations live in the rural areas like Ethiopia, the profit seeker and risk antipathetic private investor were not willing to invest as infrastructures such as asphalt road, electric power, and clean water were scarce in such areas. Hence, it is the responsibility of government to facilitate such affordable infrastructure by its own involvement and enhances the living standards of its citizens.

While doing its daily activities of both administrative issues and expenditures for capital infrastructures, the government needs much amount of revenue that can be obtained from different sources. And the most important sources of revenue for the government were tax revenue though there are other non-tax revenue sources. To that extent, the government of different countries including; underdeveloped, developing, transitional and developed countries of the world undertakes many tax reform efforts that boosts their revenue through reducing the costs they incurred while adopting, collecting, implementing and administering such taxing system. And that is why Value added tax as one type of taxing system was developed in the early 20th century.

Being introduced in France by 1954 as Taxe Sur la Valeur Adjoutée, Value added tax (henceforth VAT) has currently banquet over enormous countries of the world. To that extent, all developed and developing countries of the world with the exceptions of some countries has accepted VAT as their modern taxing system. In the words of Charlet&Butdens (2012), limited to less than ten countries in the late 1960s, VAT has now been implemented by more than 150 countries throughout the world. Among 53 members of African Union Countries, 34 (64%) of them have currently adopted VAT system. And while, Cote d’Ivore was the first country adopted VAT in 1960, Angola was the recent country who adopted VAT in 2008 from the continent of Africa (Abate, 2011).
Ethiopia aspires to be a middle income country by 2020. To meet such aspiration, sufficient amount of revenue is required for the purpose of social, economic and political aspects. That is why Ethiopia reforms her taxing system in 2002 and the outcome of which makes replacement of the outdated sales tax that have undertaken for about four decades without meeting the required agendas for which it is invented with that of VAT. By such land mark of tax reform, Ethiopia adopted VAT as her consumption taxing system by January, 2003 issuing proclamation No 285/2002. While reviewing the styles of VAT adopted in Ethiopia, Jalata, (2014) shows the existence of four main intentions for the adoptions of VAT in the Ethiopian context including; raising large amount of revenue as the engine and tool of national development, to redistribute income and wealth among members of the community residing in a state, for fulfillment of the WTO agreement and to implement the IMF directions.

The concept of VAT is on its infancy age for our globe as it is familiarized not more than half century ago. Hence, the adoption of VAT in Ethiopian context has specially been witnessed and well-known during the recent years. Due to that reason, there are no many empirical evidences that demonstrate the appropriateness of VAT as a tool for national development. To that extent, it is not clear as VAT plays its best effort to enhance the national development or it may runs against national development of the developing countries in general or Ethiopian context in particular. Therefore, the present paper is significant in the way that, it has an intention to fill the limited available literature on the subject area as there is no comprehensive research conducted on the role of VAT as a tool for national development in Ethiopian context from its adoption in 2003 to 2012. And hence, this paper will add the knowledge on the limited available literature and it will renew the consciousness of government and citizens on the effective use of VAT as a developmental tool, and examine the impact VAT have on national development so far in developing countries and Ethiopian context in particular.

2. REVIEW OF LITERATURES
For many countries, VAT replaces some alternative taxing system such as sales tax or turnover tax though some countries may invent VAT as a new mechanism without replacing any previous taxing system. VAT converts the distortionary concepts of its alternative taxes in to less distortionary as it is collected from stages to stage with a minimum amount and there is no tax evasion as it is applied on the price of goods and services to be sold and purchased. The VAT only applied on the amount of value added throughout the passage of goods and services from one stage to another, it makes the burden of taxation invisible to the customers. As such, the application of VAT can minimizes the economic cost of tax collections and it facilitates effective administrations of the taxing system that again boosts the national development of the country where it is appropriately executed.

The study of Purohit (1993) on the adoption of VAT in India considering its problems and prospects reveals as the implementations of the VAT by a rapidly growing number of countries has been one of the most remarkable events in the evolution of commodity taxation in this century. The author concludes as VAT generates sufficient amount of revenues for the government that enables to boost the country’s economic growth in general. The study of Bogetic & Hassan (1993), on the emerging conventional wisdom based largely on practice and numerous country case studies, argued as Indonesia introduced VAT in 1983 and by 1988; the ratio of VAT revenue to GDP had risen to 4.5%.

The scholarly study of Le, (2003) reveals as VAT is a form of indirect tax collected at various stages of production-distribution chains when value is added up on both goods and services. But the most important issues that come to be ambiguous about VAT are that how we know as the value is added up on goods and services. To that extent, most of commentators assumes as value added is simply measured as the difference between the value of output and the cost of inputs for both goods and services. Hence, if properly designed and implemented, the VAT that can be effectively collected on the pure value added generated at any stage can be viewed as equivalent to the single retail sales stage tax but implemented in a different fashion.

While analyzing VAT and Economic Growth in the context of Nigeria, by using time series data from 1994 to 2008 of four macroeconomic variables of GDP, VAT, total tax revenue and total federal government revenue that create the link between VAT & GDP, Adereti, et al., (2011), shows as increment of the revenue base for the government to make funds available for developmental purposes in order to accelerate economic growth is the main aim of adoptions of VAT. This can be reasoned as VAT secretly imposed on the prices of goods and services articulating the value are added upon them. Through such concept, it will reduces the administrative costs accounted on them because of the VAT self-enforcement mechanism and due to that it has been embraced by many countries world-wide.

As stated by many scholars and experts of taxations, countries that do impose a VAT tend to be larger, wealthier, and more industrialized than those that do not (Emrana & Stiglitzc, 2005). This is reasoned as VAT is imposed on buyers at each stage of value adding chains, and no one refuses to pay it unless otherwise refuses to purchase the goods and services. And that is why the Ethiopian government makes tax reform in the year 2002 that paved the way for the emergence of VAT through replacing the outdated sales tax with the VAT proclamation No 285/2002 and being executed on January 1st, 2003.
Orocka & Mbuagbo, (2012) explores how Cameroonian view the payment of taxes to the Cameroonian state in the backdrop of the pervasive corruption and the dismal levels of social service provision characterising public governance in the country since the early 1990s and they concludes that such perceptions about taxation illustrate the challenges confronting African states if they seek to expand their capacity for domestic resource mobilisation through taxation. This imply that corruption in the area of taxation is the main challenge of African countries and it give an insight for taxing authorities and the government as if taxation is collected appropriately and implemented as required, it plays as a tool for the facilitations and speed up of the countries infrastructures.

The study conducted by Charlet&Butdens (2012) on the OECD International VAT/GST guidelines of the past and future developments reveals as the share of VAT, as a percentage of total taxation has grown by more than 70%, from 11.2% on average in 1985 to 19.2% in 2009 and even if the ratios vary considerably between countries, among 27 of the 33 OECD countries with VAT, it accounts for more than 15% of total taxation during the study periods.

The study of Owolabi & A.T (2011) on the empirical evaluation of the contribution of VAT to development of Lagos State economy using the micro economic indicators of economic development such as infrastructural development, environmental management, education sector development, youth and social development, agricultural sector development, health sector development and transportation sector development for the period 2001 to 2005 showed as VAT revenue contributed positively to the development of the respective sectors though the positive contribution was statistically significant only in agricultural sector development. On the aggregate however, VAT revenue had a considerable contribution to development of the economy during the study period and finally the paper calls for equity in sectoral spending of VAT proceeds to ensure balanced and sustainable development of the state.

Aleum (2011), empirically analysis the contributions of VAT for economic development and social spending in Ethiopia from 2003 to 2010 using the variables of Health sector development, education sector development, agricultural and natural resource development, infrastructural development, other development indicator sector and development indicator sector. And the analysis of the author showed as VAT revenue had a considerable contribution for the development of the economy during the period under study though the contributions are statistically significant only to health and agricultural and natural resource development sectors.

To that extent, the paper calls for equity in sectoral spending of VAT proceeds to ensure balanced and sustainable development of the state.

While evaluating the relationships among taxations and economic growth in Ethiopia from 1993 to 2012; Jalata, (2014) shows as the contributions of tax revenue towards economic growth with the compositions of GDP shows a trend of significant increasing from period to period and on average growth rate of total tax revenue becomes 16% and that of GDP during the periods under review were 8.97%. Though the contributions of both foreign revenue and non-tax revenue to GDP were 5.16% and 4.11% on average respectively, it was much less than that of total tax revenue which is 8.1% on average. And hence, the author recommended as it is appropriate to depend sufficiently on tax revenue and to some extent on tax revenue than waiting the support of foreign revenues. However the collections and implementations of tax revenue must be supported by strong tax administrations system.

Jalata, (2014) investigated the relationships between VAT and economic growth in Ethiopia from 2003 to 2012 and that scholarly contributions reveals as there was a positive correlations exist between VAT and economic growth in Ethiopia and every 1% increase in VAT revenue causes about 13.55% increase in GDP keeping Total tax revenue with the exceptions of VAT, Non-tax revenue and foreign revenue constant during the study periods.

Generally, the summary of the above authors on the study area can be concluded as VAT promotes growth for these countries that incepted such taxing system and its adoption was still on going as every country needs to benefits and boosts their economic growth though such benefits may be not without some negative effects. However, specifically in Ethiopian context, the concept of VAT itself is new as the history reveals life span of VAT implementations only with one decade in our country. To that extent, the contributions of VAT towards the national development of Ethiopia is still not identifiable reasonably. Hence, the present paper tries to fill such limited available literature on such critical themewith the objectives of identifying the starring role of VAT as a tool for national development from its adoption in 2003 to 2012 in Ethiopian context.

3. RESEARCH METHODOLOGY AND DATA

3.1. Research Methodology
This paper seeks to investigate the relationship between VAT and national development in Ethiopia from its inceptions of 2003 to 2012. In doing so, the annual quantitative secondary time series data was employed. Such quantitative data were sourced mainly from the Ethiopian Revenue and Custom Authority (ERCA), Ministry of Finance and Economic Development (MOFED), and Ethiopian Economic Associations (EEA). This research work is both descriptive and inferential in nature that uses the variables of the data of
Gross domestic product (GDP) and Value Added Tax (VAT) for the period of 2003 to 2012. The study applies the Ordinary Least Square (OLS) regression and correlation coefficient for the purpose of empirically estimating the relationships between GDP and VAT. Both SPSS statistical package version 20.0 and Stata/SE version 11.0 was employed for analyzing the data. Hence, while descriptive statistics was employed to describe the data as they present using percentages and ratios, the independent student t-test was used for validating the research hypotheses and for interpreting the result obtained from the OLS.

3.2. Model Specification
This paper examines the correlations among GDP and VAT in order to investigate the contributions of VAT for Ethiopia’s national development for about a decade starting from its adoptions. To that extent, construction of a statistical model which inaugurates the relationships among the variables of the study was very essential. The review of different empirical literatures existed in the area of VAT and national development for different countries shows as the analysis of selected variables has the linear functional form in their general contexts. Hence, guided by the perceived functional relationship between the matrix of national development (GDP) and VAT revenue, the link is forged between these two variables. From sub-macro and micro economic perspectives, the model for this work states that the national development (GDP) depends on the revenue collected from VAT. Accordingly, the purposeful relationships and resulting models are specified as follows:

\[
\text{GDP} = f(\text{VAT})
\]

From the above functional relationships, the working model of the paper is specified below:

\[
\text{GDP} = \beta_0 + \beta_1 (\text{VAT}) + \mu
\]

Where;

\[
\text{GDP} = \text{Gross domestic product, VAT = Value Added Tax, } \beta_0 = \text{Autonomous (Intercept), } \beta_1 = \text{Coefficient of VAT, } \mu = \text{Error term}
\]

As the national development is expected even when no Revenue was collected from VAT, the ‘priori’ expectation is that the model parameter is expected to be positively signed.

3.3. Research Hypothesis
The review of different theoretical and empirical previous researches on this subject area shows as there were positive relationships between VAT and national development for the economies of different countries. To that extent, the present study evaluates statistically by developing the following hypothesis:

H0: Value Added Tax plays no significant role for Ethiopia’s national development.
H1: Value Added Tax makes a crucial role for Ethiopia’s national development.

4. RESULTS AND DISCUSSIONS

A. Results of Descriptive Analysis
The common activities of taxing system in any country were to raise revenue in a safe and dependable fashion. When the country grows richer, the government typically raises enormous extent of tax revenues which becomes enormous percentages of the country’s GDP. To that extent, the responsibility of any countries government was to make the required adjustment in order to efficiently and effectively collect the tax revenues and hence, to escalate its share for national development. The same is true in the context of Ethiopian VAT because after its adoptions, the growth rate of GDP were alarmingly increased and reached about 21.9% on average during the year 2003 to 2012 with the minimum of 1% in 2003 and the maximum value of 44.37% in 2008 (Table 1, Figure 1). The ratio of VAT revenue to GDP was only 0.46% at the age of its adoptions but such ratio reaches its highest points of 4.25% in 2012. Though there were some fluctuations of the ratio of VAT to GDP during the periods under review, the average ratio of VAT revenue to that of GDP was 2.95% (Table 1, Figure 2). In addition to that, the growth rates of VAT from 2003 to 2012 was 66.27% on average while the maximum of such growth rates was 230.31% during the year 2005, its minimum growth rates becomes 1% in the year of 2003 (Table 1, Figure 3). Therefore, starting from its adoptions to the periods under considerations, VAT contributed its own share to enhance the national development of Ethiopia.

B. Result of Regression Analysis
This part provides the empirical result of the inferential data and in order to investigate the relationships between VAT and national development in Ethiopia from 2003 to 2012, the statistical examinations of the quantitative time series data was analyzed with the applications of OLS methods.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant (C)</td>
<td>58202.789</td>
<td>23945.881</td>
<td>2.431</td>
<td>.041</td>
</tr>
<tr>
<td>VAT</td>
<td>23.500</td>
<td>2.184</td>
<td>10.760</td>
<td>.000</td>
</tr>
</tbody>
</table>

R: 0.967 R-squared: 0.935
Adjusted R-squared: 0.927 F-statistic: 115.771
Source: SPSS version 20.0 Regression Output
From the model outlined in the research methodology and the above regression output, the following estimated model is sketched as below:

\[
\text{GDP} = 58202.789 + 23.500 \times \text{VAT} + \mu
\]

The regression findings of the study showed as the autonomous or Intercept of the regression result was positive which depicts that the economy will be having a positive value of 58202.789 as the national development, due to the existence of VAT during the periods under review of 2003 to 2012. The positive coefficient of VAT confirms the priori expectation of a positive relationship between VAT revenue and national development. To that extent, the result reveals as 1Birr increment of VAT will lead to an increment of about Birr 23.500 Million in Ethiopia’s national development. Moreover, the coefficients of determination (the R-square statistics) of the model was 0.935 implying about 93.5 percent of variations in national development is explained by VAT while only about 6.5 percent of the variations in national development were accounted by other variables. This reveals as the model is good fit and the explanatory power of the variable within the model is high to make strong conclusions. The regression output of the model also informs as the correlation coefficient (R) which shows the correlation environment among VAT and national development during the study period in Ethiopia is on average 0.967. This reveals as there is the existence of both positive and strong relationships among them. In addition to that, the regression findings also acquaints as F-ratio is 115.771 which is significant because probability value of 0.000 is less than 0.05. This again shows as VAT has statistical connection with national development and it makes a unique significant contribution for it during the period under review.

Moreover, the result of t-calculated (t-statistics value) of 10.760 is more than that of the t-tabulated of 1.812 by testing it at 5% level of significant. This implies as VAT has statistically significant influence on national development of Ethiopia during the periods under considerations. To that extent, the researcher therefore rejected the null hypothesis and accepted the alternative hypothesis assuming that VAT revenue makes significant contributions to the country’s national development for the study period. Hence, Ethiopia must search for the way to boost the revenue from VAT by mostly supporting with the configurations of networks among all the agents of government and taxing authorities of the federal level, each regions and city administrations in order to meet the growth and transformations plans (GTP) of the country.

5. CONCLUSION AND POLICY IMPLICATIONS

Recently an increasing number of countries around the world have swapped their concern towards the adoptions and implementations of VAT and Ethiopia is not exceptions but one among such a large chorus. This study investigates the relationships between VAT and national development in Ethiopia from 2003 to 2012 with the applications of the OLS method by using the annual quantitative time series secondary data. The result of the study showed that, after the implementations of VAT in Ethiopia, the national development that measured in terms of GDP has largely improved. This is evidenced because of the growth rates of VAT itself was 66.27% on average and the average ratio of VAT revenue to that of GDP was 2.95%. And finally, the growth rate of GDP after the implementations of VAT becomes 21.9% on average during the periods under review. Furthermore, the regression findings of the study showed as the Ethiopian National development is significantly influenced by the VAT revenue. So, the study concluded that VAT plays an energetic role for the national development of Ethiopia and it enables to succeed the current growth and transformations plan (GTP) of the country. Therefore the paper recommends that the Ethiopian government should make a full-fledged effort to efficiently collect and effectively utilize such tax revenue through closing the door towards the issues of corruptions which can be possible through making the VAT administrations more fashionable than ever before.

REFERENCES


APPENDIX

Table 1: VAT Revenue and GDP

<table>
<thead>
<tr>
<th>Year</th>
<th>In Millions of ETB</th>
<th>VAT/ GDP Ratios (%)</th>
<th>Growth rates of GDP (%)</th>
<th>Growth rates of VAT (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GDP</td>
<td>VAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>81421.07</td>
<td>372.2</td>
<td>0.46</td>
<td>1</td>
</tr>
<tr>
<td>2004</td>
<td>91044.09</td>
<td>1220.7</td>
<td>1.34</td>
<td>11.82</td>
</tr>
<tr>
<td>2005</td>
<td>100908.38</td>
<td>4032.05</td>
<td>4.0</td>
<td>10.83</td>
</tr>
<tr>
<td>2006</td>
<td>131641.45</td>
<td>4809.15</td>
<td>3.65</td>
<td>30.46</td>
</tr>
<tr>
<td>2007</td>
<td>171989.14</td>
<td>5931.48</td>
<td>3.45</td>
<td>30.65</td>
</tr>
<tr>
<td>2008</td>
<td>248302.68</td>
<td>7312.89</td>
<td>2.95</td>
<td>44.37</td>
</tr>
<tr>
<td>2009</td>
<td>335392.04</td>
<td>8988.18</td>
<td>2.68</td>
<td>35.07</td>
</tr>
<tr>
<td>2010</td>
<td>382938.65</td>
<td>13677.93</td>
<td>3.57</td>
<td>14.18</td>
</tr>
<tr>
<td>2011</td>
<td>506079.135</td>
<td>16156.12</td>
<td>3.19</td>
<td>32.16</td>
</tr>
<tr>
<td>2012</td>
<td>548921.587</td>
<td>23313.25</td>
<td>4.25</td>
<td>8.47</td>
</tr>
<tr>
<td>Average</td>
<td>259863.8</td>
<td>8581.395</td>
<td>2.95</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Source: Author’s computations based on the data from MOFED, ERCA & EEA
Figure 1: Growth Rate of GDP (2003-2012)  Figure 2: The Ratio of VAT to GDP (2003-2012)

Source: Author’s computations based on the data from MOFED, ERCA & EEA

Figure 3: Growth rates of VAT (2003-2012) in percentages

Source: Author’s computations based on the data from MOFED, ERCA & EEA
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