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Impact of Recurrent and Capital Expenditure on Nigeria's Economic Growth

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Abstract
The need to better the lots of citizens through government expenditure has raised questions on the impact of government expenditure on its impact on economic development and growth of nations. It is against this background that this paper examines the impact of government expenditure (disaggregated into recurrent and capital expenditure) on economic growth from 1987 to 2010. Three variable multiple regression model was adopted while recurrent expenditure and capital expenditure were used as independent variable and gross domestic product growth rate as dependent variable. The result emanating from this study reveals that while recurrent government expenditure had positive and non-significant impact on economic growth, capital expenditure had negative and non-significant impact on economic growth thus re-echoing the need for increase and encouragement of private sector investment while have proven over the years as a more efficient utilization of resources compared to public sector.
Keywords: Recurrent Expenditure, Capital Expenditure, Economic Growth, Nigeria

1.0 Introduction

The need to better the lots of citizens through government expenditure has raised questions on the impact of government expenditure on its impact on economic development and growth of nations. In Nigeria and other developing economies, over the years, there has been a steady increase in government spending without an appreciable increase in economic growth and development. These have led to several researches and interest on the role of government spending in the long term growth of national economics by economists. The revival of interest in growth theories has also revived interest among researchers in verifying and understanding the link between government fiscal policies and economic growth.

In Nigeria for instance, despite the huge amount of public expenditures, there is still an insignificant level of development witnessed. Public expenditure on all sectors of the Nigerian economy is expected to lead to economic growth in the sense that capital and recurrent expenditure will boost the productive base of the economy which in turn will lead to growth. The interest by economists in Nigeria and other jurisdictions on the role of government expenditure is still inconclusive. Barro (1990) endogenize government spending in a growth model and analyze the relationship between size of government and rates of growth and saving. He concluded that an increase in resources devoted to non-productive government services is associated with lower per capita growth. Therefore, government expenditure which enhances economic growth should be tailored towards productive services.

According to Barro and Grilli (1994), Government spending (or government expenditure) includes all government consumption and investment but excludes transfer payments made by a state. Government expenditure can be for the acquisition of goods and services for current use to directly satisfy individual or collective needs of the members of the community or it can be for acquisition of goods and services intended to create future benefits such as infrastructure investment and the expenditures can represent transfers of money, such as social salaries and cost of administration.

Therefore, Government expenditure (like expenditure by private sector firms) can be categorised into either current expenditure or capital expenditure. Current expenditure is recurring spending or, in other words, spending on items that are consumed and only last a limited period of time. They are items that are used up in the process of providing a good or service. In the case of the government, current expenditure would include wages and salaries and expenditure on consumables - stationery, drugs for health service, bandages and so on. By contrast, capital

expenditure is spending on assets. It is the purchase of items that will last and will be used time and time again in the provision of a good or service. In the case of the government, examples would be the building of a new hospital, the purchase of new computer equipment or networks, building new roads and so on.

The breakdown between these two types of spending is very important. While capital expenditure has a lasting impact on the economy and helps provide a more efficient, productive economy. Current expenditure, however, doesn't have such a lasting impact. Once the money is spent, it is gone and the effect on the economy is simply a short-term one. It is against the importance of these two categories of expenditure and the increasing quantum made by the Nigeria government over the years that, this seminal paper examines the impact of government expenditure on economic growth in Nigeria from 1987 to 2010.

The remainder of this paper is organized as follows: Section two contains the review of related literature; section three; the methodology; section four; presentation and analysis of data; while in section five; the conclusion and recommendations.

2.0 Review of Literature Review

The relationship between public expenditure and economic growth has continued to generate series of controversies among scholars in economic literature. The nature of the impact is in conclusive and while some authors believed that the impact of government expenditure on economic growth is negative or non significant (Akpan, 2005), others believed that the impact is positive and significant (Korman and Brahmasrene, 2007).

The recent revival of interest in growth theory has also revived interest among researchers in verifying and understanding the linkages between fiscal policies and economic growth. Over the past decade and a half, a substantial volume of empirical research has been directed towards identifying the elements of public expenditure that bear significant association with economic growth. This empirical literature varies in terms of data sets, econometric techniques, and often produces conflicting results.

Explanations offered to account for these varied and conflicting results can broadly be divided into two categories. According to the first, it is the differences in the set of conditioning variables and initial conditions across studies that are responsible for the lack of consensus in the results (Levine and Renelt 1992). In contrast, the second category consists of a handful of studies (Helms 1985; Mofidi and Stone 1990; Kneller *et al*. 1999) that suggest this variation in the results, in part at least, reflects the wide spread tendency among researchers to ignore the implications of the government budget constraint for their regressions. In particular, the latter view emphasizes the need to consider both the sources and the uses of funds simultaneously for a meaningful evaluation of the effects of taxes or expenditures on economic growth.

Aregbeyen (2007) established a positive and significant correlation between government capital and public investment and economic growth, while he found that current and consumption expenditures were negatively associated with it. Other studies also confirm either a negative or a positive correlation/relationship between fiscal policy (with government expenditure, public investment or related variables used as proxies) and economic growth.

Laudau (1983) studied the effect of government (consumption) expenditure on economic growth for a sample of 96 nations. His result was that there is a negative effect of government expenditure on growth of real output. Kormain and Brahmasrene (2007) studied the economy of Thailand. They made use of the Granger causality tests. Their finding was that government expenditures and economic growth are not co-integrated but indicated a unidimensional relationship. This is because, causality runs from government expenditure to growth, and also detected a significant positive effect of government spending on economic growth. Gregorious and Ghosh (2007) made use of the heterogeneous panel data to study the impact of government expenditure on economic growth. The result was that countries with large government expenditure tend to experience higher growth. Donald and Shuanglin (1993) studied the differential effects of different forms of expenditure on economic growth for 58 sampled countries. They came up with the result that government expenditure on education and defense has positive impact on economic growth and that of welfare was insignificant and negative.

Barro (1990) believed that expenditure on investment and productive activities is expected to contribute positively to economic growth, while government consumption spending is expected to be growth retarding. Government controls the economy through the use of public expenditure. This instrument of government control promotes economic growth in the sense that public investment contribute to capital accumulation.

Other importance of government expenditure includes the provision of those facilities that are not covered by the market economy such as health economic growth. That is, human capital promotes high benefit associated with economic growth, but the financial source for public expenditure which is the taxation reduces the benefits of the taxpayers and as such reduces the benefits associated with economic growth. The beauty of public expenditure in promoting economic growth lies with the way it is being spent. In empirical literature, while some authors believed that there is no impact of public expenditures on economic growth (Gupta *et al*., 2002), others believed that the impact is negative (Folster and Henrekson, 1999), while some believed that the relationship is insignificant. Economic growth is an essential ingredient for sustainable development.

Akpan (2005) made use of disaggregated approach in order to determine the components of government expenditure that enhances growth. He concluded that there was no significant relationship between most components of government expenditure and economic growth in Nigeria. Kneller and Gemmell (1999) pointed out that composition of government expenditure might exert more influence as compared to the level of government expenditure on economic growth.

Devarajan *et al*. (1996) using a sample of 140 ECD countries found that expenditure on health, transport and communication have positive impacts) on economic growth. Spending education and defense did not have a positive impact on economic growth. The nature, size and direction of government spending would surely determine its impact on the economy, which will directly or indirectly affect the size and the output of the economy. Government spending and economic growth are directly related. It has been established in literature by some authors that there is a link between economic growth and government spending; they believe that there is a nexus between government spending and economic growth.

While we have expenditure that are productive according Barro and Sala-i-Matin (1992), there are others that are not productive. Government spending has direct impact on the rate of economic advancement. Infrastructure is a key to economic growth. A good infrastructural development will enhance productivity and bring about a low unit cost of production, which will in turn increase competitiveness and effective participation in the international market.

In addition to producing conflicting views, the existing literature displays a disturbing trend. Most of the conclusions drawn recently regarding the growth effects of public spending are based either on the experiences of a set of developed countries or on the basis of large samples consisting of a mixture of developed and developing countries. Accordingly, there remains little by way of understanding the process by which public expenditure policies shape the prospect of economic growth for developing countries. This trend has continued despite the long standing view among development experts that there exists not only a significant difference in the composition of public expenditure between the developed and developing countries, but the difference is also profound in the way in which public expenditures shape the outcome in these two set of countries. The only exceptions to the above trend are the contributions by Landau (1986), Devarajan et al. (1996), and Miller and Russek (1997). Despite their commendable objective, these studies, however, share one of the aforementioned weaknesses that are pervasive in the existing literature. Hence, this paper examined the impact of government expenditure on economic growth through a disaggregated (recurrent and capital expenditure) approach.

3.0 Methodology

3.1 Model Specification

This seminal paper adopted the *ex-post facto* research design in this study. Data were collated from the Central Bank of Nigeria Statistical Bulletin while the three variable regression models was used to test the impact of government expenditure on economic growth disaggregated into recurrent and capital expenditure. The choice of multiple

regression models is based on the use of more than single independent variables in a regression model (see, Onwumere, 2005).

The general form for a multiple regression analysis is given in the form below:

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \mu$…… (1)

where:

Y = dependent variable
$\beta 0$ = equation constant
$\beta 1, \beta 2$ = coefficients of explanatory variables
$X1\ X2$ = independent or explanatory variables
μ = error term

Given the above general multiple regression function and the proxies for recurrent and capital expenditure as well as gross domestic product growth rate; the following acronyms suffice:

Gross Domestic Product Growth Rate = GDPGR
Recurrent Government Expenditure = RE
Capital Government Expenditure = CE

Adopting Levine (2000) modified standard growth regression equation in line with the objectives of this paper to examine the impact of government expenditure disaggregated recurrent and capital expenditure on economic growth in Nigeria, the equation is resolved below:

$GDPGR\ f\ (RE, CE) = 0$ …….. (2)

Equation 2 is interpreted as economic growth being a function of recurrent and capital expenditure. Rearranging equation 2 in line with the model, the equation becomes:

$GDPGR = \beta 0 + \beta 1RE + \beta 2CE + \mu$…….. (3)

3.2 Description of Explanatory Variables

Dependent Variable: Economic Growth

GDP is proxied in this seminal paper for economic growth. It is the total aggregate value of goods and services produced in a country over a given period (normally a year). The GNP which should have been more appropriate is the total value of goods and services produced by all the nationals whether within and outside the country over a given period in the economy. However, it is difficult to compute GNP or get realistic figures especially for Nigeria (a developing country) because of the difficulty involved in generating values for the country's citizens outside the country. Thus, this paper used the GDP growth rate as the measure of economic growth in this study, hence:

GDPGRn = (GDPn2- GDPn1)/GDPn1..…… (4)

where
GDPGRn = Gross Domestic Product Growth Rate
GDPn2 = Gross Domestic Product for the current year
GDPn1 = Gross Domestic Product for the previous year

Independent Variable

Recurrent Government Expenditure

Recurrent expenditure on goods and services is expenditure, which does not result in the creation or acquisition of fixed assets (new or second-hand). It consists mainly of expenditure on wages, salaries and supplements, purchases of goods and services and consumption of fixed capital (depreciation). In this seminal paper, total recurrent government expenditure rate will be proxied by total recurrent government expenditure divided by gross domestic product. The rate indicates a reflection of government recurrent expenditure that goes into enhancing economic growth in Nigeria.

Capital Government Expenditure

Capital expenditure is spending on assets. It is the purchase of items that will last and will be used time and time again in the provision of a good or service. In the case of the government, examples would be the building of a new hospital, the purchase of new computer equipment or networks, building new roads and so on. In this seminal paper, total capital government expenditure rate will be proxied by total capital government expenditure divided by gross domestic product. The rate indicates a reflection of government capital expenditure that goes into enhancing economic growth in Nigeria.

4.0 Presentation and Analysis of Data

Table 4.1 presents nominal values of government recurrent and capital expenditure and the gross domestic product of Nigeria from 1987 to 2010.

Table 4.1 Nominal Values of Recurrent, Capital and Gross Domestic Product (1987-2010)

Year	Recurrent Expenditure (N,000)	Capital Expenditure(N,000)	Gross Domestic Product(N,000)
1987	15,646.20	6,372.50	204,806.50
1988	19,409.40	8,340.10	219,875.60
1989	25,994.20	15,034.10	236,729.60
1990	36,219.60	24,048.60	267,550.00
1991	38,243.50	28,340.90	265,379.10
1992	53,034.10	39,763.30	271,365.50
1993	136,727.10	54,501.80	274,833.30
1994	89,974.90	70,918.30	275,450.60
1995	127,629.80	121,138.30	281,407.40
1996	124,491.30	212,975.70	293,745.40
1997	158,563.50	269,651.70	302,022.50
1998	178,097.80	309,015.60	310,890.10
1999	449,662.40	498,027.60	312,183.50
2000	461,600.00	239,450.90	329,178.70
2001	579,300.00	438,696.50	356,994.30
2002	696,800.00	321,378.10	433,203.50
2003	984,300.00	241,688.30	477,533.00
2004	1,032,700.00	351,300.00	527,576.00
2005	1,223,700.00	519,500.00	561,931.40
2006	1,290,201.90	552,385.80	595,821.60
2007	1,589,270.00	759,323.00	634,251.10
2008	2,117,362.00	1,123,458.00	674,889.00
2009	2,300,194.30	1,152,796.50	721,122.00
2010	3,310,343.38	883,874.50	775,400.00

Source: CBN Statistical Bulletin 2010

Table 4.2 presents the changes and percentage changes in Nigeria's recurrent, capital expenditure and gross Domestic Product from 1987 to 2010.

Table 4.2 Changes and Percentage Changes of Recurrent, Capital Expenditure and Gross Domestic Product (1987-2010)

Year	Change in RE	% Change	Change in CE	% Change	Change in GDP	% Change
1987	0	0	0	0	0	0
1988	3,763.20	24.05	1,967.60	30.88	15,069.10	7.36
1989	6,584.80	33.93	6,694.00	80.26	16,854.00	7.67
1990	10,225.40	39.34	9,014.50	59.96	30,820.40	13.02
1991	2,023.90	5.59	4,292.30	17.85	(2,170.90)	-0.81
1992	14,790.60	38.67	11,422.40	40.30	5,986.40	2.26
1993	83,693.00	157.81	14,738.50	37.07	3,467.80	1.28
1994	-46,752.20	-34.19	16,416.50	30.12	617.30	0.22
1995	37,654.90	41.85	50,220.00	70.81	5,956.80	2.16
1996	-3,138.50	-2.46	91,837.40	75.81	12,338.00	4.38
1997	34,072.20	27.37	56,676.00	26.61	8,277.10	2.82
1998	19,534.30	12.32	39,363.90	14.60	8,867.60	2.94
1999	271,564.60	152.48	189,012.00	61.17	1,293.40	0.42
2000	11,937.60	2.65	-258,576.70	-51.92	16,995.20	5.44
2001	117,700.00	25.50	199,245.60	83.21	27,815.60	8.45
2002	117,500.00	20.28	-117,318.40	-26.74	76,209.20	21.35
2003	287,500.00	41.26	-79,689.80	-24.80	4,329.50	10.23
2004	48,400.00	4.92	109,611.70	45.35	50,043.00	10.48
2005	191,000.00	18.50	168,200.00	47.88	34,355.40	6.51
2006	66,501.90	5.43	32,885.80	6.33	33,890.20	6.03
2007	299,068.10	23.18	206,937.20	37.46	38,429.50	6.45
2008	528,092.00	33.23	364,135.00	47.96	40,637.90	6.41
2009	182,832.30	8.63	29,338.50	2.61	46,233.00	6.85
2010	1,010,149.08	43.92	-268,922.00	-23.33	54,278.00	7.53

Source: Authors Computation

Tables 4.1 and 4.2 are interpreted together, the table reveal that recurrent expenditure, capital expenditure and gross domestic product of Nigeria from 1987 to 2010 increased steadily with few fluctuation in some years. Nigeria's government recurrent expenditure increased by 24.05% from 1987 to 1988 and increased by 33.93% in 1989 and a further increase by 39.34% in 1990. However, the increase continued in 1991, though the rate of increase was 5.59%. The increase picked up again in 1992 when recurrent expenditure increased by 38.67%. In 1993, it again increased by 157.81%. However, in 1994, government recurrent expenditure fell for the first within the study period by 34.19%. In 1995, it again increased by 41.85% but in 1996, it fell by 2.46%. From 1997 to 2010, government recurrent expenditure showed a steady increase. However, the highest increase with these periods was in 1999 when the increase was by 152.48%. This could be attributed to the Nigerian democratic election in that year.

As stated, government capital expenditure also increased from 1987 to 2010. However, in 2000, 2002, 2003 and 2010 capital expenditure fell by 51.92%, 26.74%, 24.80% and 23.33% from the previous year quantum values. Apart from these years, the capital expenditure increased from year to year. The highest increase compared to the previous year was observed in 1989 by there was an 80.26% increase. This was followed by 2001 when the increase was

83.21% and in 1996 when it increased by 75.81%. Again within these periods, the years with the least increase in capital expenditure was in 2009 with government capital expenditure increased by 2.61%, followed by 2006 with an increase of 6.33% and 1998 (14.60%) in ascending order.

Gross domestic product grew from 1987 to 2010, with a single fall in 1991. Gross domestic product fell by 0.81% from the previous year figure of N267, 550.00million to N265, 365.00million. The highest increase in gross domestic product within the period was in 2002 when GDP increased by 21.35%, this was followed by 1990 when GDP growth rate was 13.02%. As revealed from the table, gross domestic product has shown a steady increase from 2005 to 2010. GDP in Nigeria has been growing at an average of 6% through these years.

Table 4.3 Correlation Results

	REGDP	CEGDP	GDPGR
REGDP	1.000000	-	-
CEGDP	0.762874	1.000000	-
GDPGR	0.338384	0.112950	1.000000

Source: Author's E-view Results

Table 4.3 presents the correlation matrix of the model proxies. From the table above, it was revealed that recurrent government expenditure has positive relationship with economic growth in Nigeria (R= 0.763) within the period under review. This indicates that a unit in economic growth is attributable to a 0.763 increase in recurrent expenditure. Also, the correlation matrix results indicate that capital expenditure has positive relationship with economic growth within the period under review. However, the level of increase is quite smaller. The table reveals that a unit increase in economic growth is due to 0.113unit increase in capital expenditure.

Table 4.4 Regression Results

Dependent Variable: GDPGR				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
REGDP	2.513062	1.284637	1.956243	0.0639
CEGDP	-3.269529	2.903278	-1.126151	0.2728
C	4.832766	1.641347	2.944391	0.0077
R-squared	0.664934	Mean dependent var		5.786667
Adjusted R-squared	0.585404	S.D. dependent var		4.950280
S.E. of regression	4.734176	Akaike info criterion		6.063961
Sum squared resid	470.6610	Schwarz criterion		6.211218
Log likelihood	-69.76753	F-statistic		2.073858
Durbin-Watson stat	1.413043	Prob(F-statistic)		0.150684

Authors' E-view Computation

As revealed from table 4.4, the impact of recurrent government expenditure is positive and non-significant (coefficient of RE = 2.51, t-value = 1.96). This indicates that recurrent government expenditure has positive but not significant impact on the growth of the Nigerian economy. The probability value of 0.06 > 0.05 confirms non-significance of the impact. Again as revealed from the table the impact of capital government expenditure was negative and non-significant (coefficient of CE = -3.27, t-value = -1.17). This indicates that government capital expenditure has negative non-significant impact on the growth of the Nigerian economy. The probability value of 0.27 > 0.05 again confirms non-significance of the impact. On the whole the coefficient of determination as revealed by R-square (R^2) indicates that 0.66 of the variations observed in the dependent variable gross domestic product growth rate were explained by variations in the independent variable (recurrent and capital expenditure) The test of goodness of fit of the model as indicated by R^2 was properly adjusted by the Adjusted R-Square of 0.58. On the whole, the overall probability (F-statistics) is 0.15 which is greater than 0.05 properly explains the non-significance of government expenditure on economic growth in Nigeria with the period under review.

5.0 Conclusion and Recommendations

Over the years, policymakers are divided as to whether government expansion helps or hinders economic growth. Advocates of bigger government argue that government programs provide valuable "public goods" such as education and infrastructure. They also claim that increases in government spending can bolster economic growth by putting money into people's pockets. Proponents of smaller government have an opposite view these group of person explain that government is too big and that higher spending undermines economic growth by transferring additional resources from the productive sector of the economy to government, which uses them less efficiently. They also warn that an expanding public sector complicates efforts to implement pro-growth policies - such as fundamental tax reform and personal retirement accounts - because critics can use the existence of budget deficits as a reason to oppose policies that would strengthen the economy. So, which side is right? It is against this background that this study examines the impact of government expenditure (disaggregated into recurrent and capital expenditure) on economic growth in Nigeria for the period 1987 to 2010. The result emanating from this paper reveals that while recurrent government expenditure had positive and non-significant impact on economic growth, capital expenditure had negative and non-significant impact on economic growth.

In a growing economy, government spending can be curtailed, the government sector can revert to a lower level of spending and personnel can be re-directed to the business sector. However, while budgetary expansion is easy in a recession, cut-backs during economic highs are very difficult. The result of this study reveals that total government expenditure had not impacted positively on economic growth thus begging the question of the need to encourage private sector investment in Nigeria. The efficiency of the private sector particularly compared to the government sector cannot be over emphasized. A public organization can continue its activity even if the services it provides are no longer required. Its directors and the relevant minister will not be quick to relinquish power which is a function of the jobs they control and the funds at their disposal. The result is superfluous services, wasting personnel and capital, which could be directed to production that provides well-being and benefit to individuals in the economy.

References

Akpan, N. (2005), "Government expenditure and Economic Growth in Nigeria: A Disaggregated Approach" *CBN Economic Financial Review*, 43(1)

Aregbeyen, O. (2007), "Public Expenditure and Economic Growth", *African Journal of Economic Policy*, Ibadan (Nigeria): University of Ibadan Press 1 (1)

Barro, R (1990), "Government Spending in a Simple Model of Endogenous Growth", *Journal of Political Economics*, 98: pp103-125

Barro, R. and V. Grilli (1994), *European Macroeconomics*, london: Macmillan

Barro, R and D. Sala-i-Matin (1992), "Public Finance in Models of Economic Growth", *Review of Economic Studies*, 59: 645-661

Devarajan S, Swaroop V and H. Zou (1996), "The Composition of Public Expenditure and Economic Growth", *Journal of Monetary Economics*, 37: 313-344

Donald, N.B and L. Shuanglin (1993), "The differential effect on economic of Government expenditure on Education, welfare and Defense", *Journal of Economic Development*, 18 (1)

Folster S and M. Henrekso (1999), "Growth Effects of Government Expenditure and Taxation in Rich Countries", *European Economic Review*, 45: pp1501-1520

Gregorious, A and S. Ghosh (2007), "The impact of Government Expenditure on Growth: Empirical Evidence from

Heterogeneous panel", (http://www.brunel.ac.uk/9379/efwps/0701.pdf assessed on 12/08/10)

Gupta C, Baldacci E and C. Mulas-Granados (2002), "Expenditure Composition, Fiscal Adjustment, and Growth in Low- income Countries" *IMF Working*, pp. 02/77

Helms, L., (1985), "The Effect of State and Local Taxes on Economic Growth: A Time Series Cross Section Approach", *Review of Economics and Statistics*, 67 (3), 574 – 582

Kneller R.B.M and N. Germell (1999), "Fiscal Policy and Growth: Evidence from OECD countries", *Journal of Public Economics* 74: 171-190

Koman, J and T. Bratimasrene (2007), "The relationship between Government Expenditure and Economic Growth in Thailand", *Journal of Economic Education*, Vol14: pp 234-246

Landau, D. L. (1986), "Government and Economic Growth in the Less Developed Countries: An Empirical Study for 1960-88", *Economic Development and Cultural Change*, 35, 35-75

Laudau D. (1983), "Government Expenditure and Economic Growth: A Cross Country Study' *Southern Economic Journal*, 49: 783-792

Levine, R and D. Renelt (1992), "A Sensitivity Analysis of Cross-Country Growth Regressions", *American Economic Review*, 82 (4), 942 – 963

Miller, S. M. and F.S Russek (1997), "Fiscal Structures and Economic Growth", *Economic Inquiry*, 35, 603 – 613

Mofidi, A. and J. Stone (1990): "Do State and Local Taxes affect Economic Growth?", *Review of Economics and Statistics*, 72 (4), 686 – 691

Onwumere, J.U.J (2005), *Business and Economic Research Method*, Lagos; Don-Vinton Limited