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## ASSESSMENT OF VALUE ADDED TAX ON REVENUE GENERATION IN GOA

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### ABSTRACT

This paper examines the impact of Value Added Tax on revenue generation in Goa. The secondary source of data was used. Data analysis was performed. Findings showed that Value Added Tax has significant effect on revenue generation in Goa. The study recommends that there should be dedication and apparent honest on the parts of all agents of VAT with respect to the collection and payment and that government should try as much as possible to improve on the way of collecting Value Added Tax.

**Key words:** Value Added Tax, Total Revenue, Own Tax Revenue.

### INTRODUCTION

The global economy has seen a lot of instability in the last few years. The period 2007-08 was a period of global recession and Goa was not spared from its effects. Revenue receipts as well as growth of the State were adversely affected. This is primarily due to the various external economic factors, on which Goan economy relies upon. However the year 2010-11 has shown signs of global recovery which has directly impacted economic growth for the year 2011-12. The economy of the state as per 2004-05 prices has been growing at around 10 percent for last few years, except in 2007-08 wherein the growth rate stood at 5.4 per cent with the base year 2004-05 due to impact of global economic meltdown.

Goa was ruled by the Portuguese in the 16th Century and remained a Portuguese colony until 1961 when the Indian army liberated Goa. A tiny emerald land on the west coast of India, the 25<sup>th</sup> State in the Union of States of India, was liberated from Portuguese rule in 1961. Goa covers an area of 3702 square kilometers and comprises two revenue districts North Goa and South Goa.

**LITERATURE REVIEW:**

Value Added Tax (VAT) is a replacement to Sales Tax. In India Value Added Tax (VAT) was introduced to reform the indirect tax system and to bring uniformity in the tax system across the country. The rationalization of indirect tax is expected to stimulate economic development of the country. VAT is a consumption tax whose incidence rests with the final consumers and it is involved in multi-stage collection of tax (Oladipupo 2013). The Value Added Tax (VAT) basically means the tax levied on the value added by an organization at each stage of its rendering services or producing goods (Sarkar, C.R. 2005). Starting with Haryana in 2003-04 and ending with Uttar Pradesh in 2007-08, VAT on goods were implemented in all Indian states and several union territories (Gupta Das, 2012). Khan and Shadab (2013) studied the impact of Value Added Tax (VAT) on the state revenue in the pre and post VAT period taking the case of six states such as Andhra Pradesh, Bihar, Karnataka, Kerala, Maharashtra and Orissa. The study used variables such as State Sales Tax/Value Added Tax (ST/VAT), Gross State Domestic Product (GSDP) to examine the revenue impact of VAT. Using statistical tools such as Compound Annual Growth Rate (CAGR), Buoyancy (B), and Co-efficient of Variation (CV), the study found CAGR of post VAT period of all six major states of India were greater than pre VAT period. The results proved that the VAT improves tax compliances and increases the efficiency of tax administration in the examined states. Study also suggested that VAT features are highly competent to allot benefit to the government. So the channel of distribution and flow of VAT must be reformed. Gupta Das (2012) examined two important issues confronting VAT namely (i) whether the VAT has done better than the sales tax it replaced, (ii) Whether VAT contributed to an improved own revenue performance. In order to study the revenue impact of state level VAT in India, the study considered revenue and GSDP for 29 states for the period 1993-1994 to 2008-09. The study examined the direct tax revenue impact by testing if VAT introduction increased VAT or State's Own revenue Buoyancies to GSDP ratios. The results showed that there is no direct impact of VAT on its base. The direct revenue impact of VAT was found to be positive in two-thirds of the sample jurisdictions. The findings indicated that there are deficiencies in VAT Acts and Rules in many states and defective procedures for verifying Input Tax Credit claims and detecting fake Input Tax Credits. Deshmukh (2012) conducted a study of Economic Analysis of VAT and revenue Growth in Maharashtra and stated that Maharashtra is the third largest state which contributed 12 percent revenue through VAT in the national exchequer in year 2009-10. In Maharashtra the contribution of Sales Tax/VAT revenue to gross receipts has increased from 52.20 percent to 67.07 percent during 2001-02 to 2009-10. The findings indicated that since e- registration has been made compulsory for every dealer, VAT has simplified the paper work, proved user friendly, reduced transaction costs and time.

**OBJECTIVES OF THE STUDY:**

The objectives of the study are to evaluate the Economic Scenario in Goa before liberation and Sales Tax Collections before implementation of Value Added Tax system and after implementation of Value Added Tax system. This led to following specific objectives.

- i) To study the Economic Scenario in Goa before liberation.
- ii) To study the VAT and its Impact on the Tax Revenues in Goa.

#### **THE ECONOMIC SCENARIO IN GOA BEFORE LIBERATION:**

The Portuguese, by large, maintained the tax collection system introduced by the Kadambas. Of course, the tax on *shendi* (tuft of hair on the shaven head) on Hindus was an innovative tax invented and introduced by Portuguese. The budgeting system adopted by the former Portuguese government in Goa was vastly different from present one under Indian system. The receipts were grouped under nine heads.

- 1) Direct taxes
- 2) Indirect taxes
- 3) Special taxes such as mining tax
- 4) Administrative receipts
- 5) Income from government property and undertakings
- 6) Income from Investments
- 7) Recoveries
- 8) Income from autonomous bodies
- 9) Extraordinary Income.

In the Budget 1906-07 government receipts amounted to ₹ 23.83 lakhs of which ₹ 12.74 lakhs came from direct taxes and ₹4.75 lakhs from custom duties; balance from others, the expenditure amounted to same figure.

The short period of 50 years from 1961, i.e., from the Goa's liberation till today, has brought about a discernible socioeconomic transformation of this small State.

#### **GOA SALES TAX ACT:**

Sales Tax was introduced in Goa, Daman and Diu from 1<sup>st</sup> November 1964. Some major changes were introduced in the Act in 1974. This Act is amended with effect from 1.7.1989 and is called 'The Goa Sales Tax Act 1989' and the levy of sales tax is governed by Goa Sales Tax Act 1989 and the CST Act 1956.

#### **GOA VALUE ADDED TAX ACT 2005:**

Goa Value Added Tax (GVAT) Act, 2005 (introduced from 1<sup>st</sup> April 2005) govern the levy and collection of tax on sale or purchase of goods in the State. Under the GVAT Act, tax on the turnover of sale or purchase of goods are leviable only at the specified point, other than the points specified for levy of tax, are exempt subject to the condition that the dealer claiming exemption shall furnish supporting documents or prescribed declaration /certificate. Under the GVAT tax on the turnover of sale of goods is leviable at all points. The assessing authorities are required to confirm the genuineness of these declaration or documents through cross verification of records of other dealers/State and utilize the information gathered from check post before finalizing the assessment.

**TRENDS IN SALES TAX / VALUE ADDED TAX IN GOA:**

For any national or sub national economy, revenue mobilization is the key to economic development.

**TABLE-1****TRENDS IN SALES TAX /VAT**

(Rs in Crores)

Year	Sales Tax/VAT
2000-01	346.73
2001-02	365.37
2002-03	398.93
2003-04	463.52
2004-05	502.70
2005-06	671.83
2006-07	783.28
2007-08	819.66
2008-09	1072.15
2009-10	1064.07
2010-11	1280.58
2011-12	1563.23

Source: Economic Survey

The table 1 depicts that trend for sales tax in Goa has been increased from Rs.346.73 crore in the year 2000-01 to Rs. 502.70 crore in the year 2004-05. From the introduction of Value Added Tax it has again increased to Rs 671.83 crore in 2005-06. The Value Added Tax has been going on increased to Rs 1072.15 crore in 2008-09 and slightly decreased to Rs 1,064.07 crore. It showed upward trend in the years 2010-11 and 2011-12. In the year 2011-12 the revenue from Value Added Collections amounted to Rs 1,563.23 crore.

The trend in sales tax in Goa is graphically presented below.

## TRENDS IN SALES TAX/IN THE STATE OF GOA

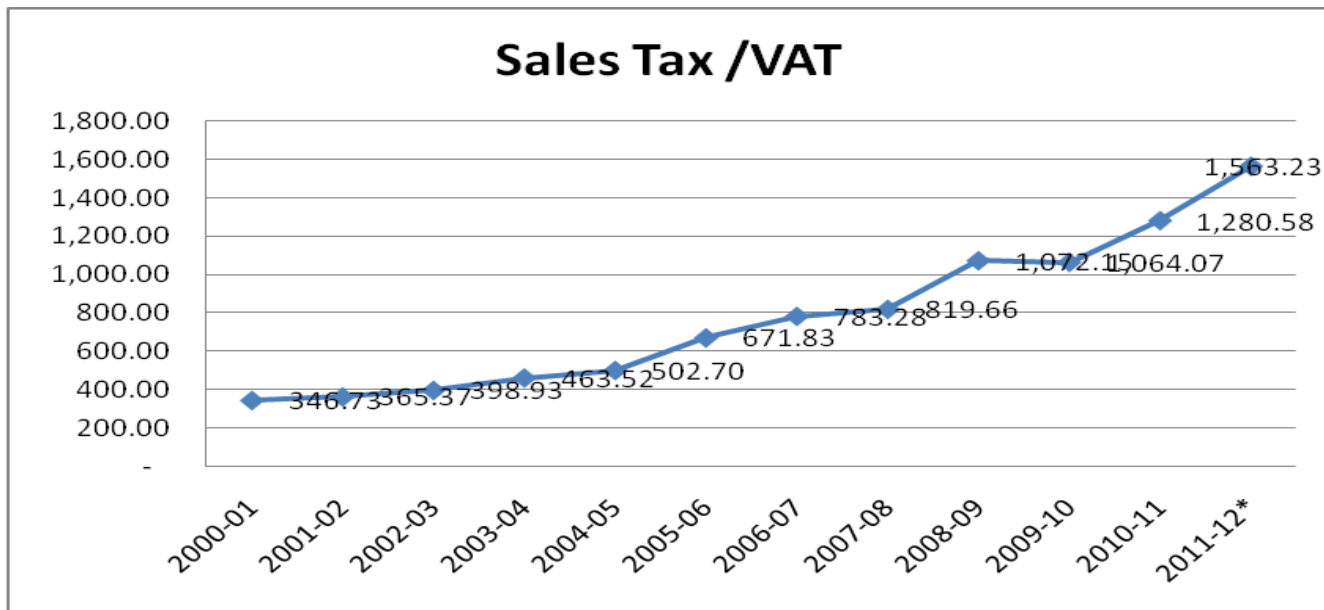


TABLE-2

## SALES TAX /VAT ANNUAL GROWTH RATE

(Rs in Crores)

Year	Sales Tax /VAT (Rs)	Annual Growth Rate ( Percent)
2000-01	346.73	
2001-02	365.37	5.38
2002-03	398.93	9.19
2003-04	463.52	16.19
2004-05	502.70	8.45
<b>Average Growth</b>		<b>9.80</b>
2005-06	671.83	33.64
2006-07	783.28	16.59
2007-08	819.66	4.64

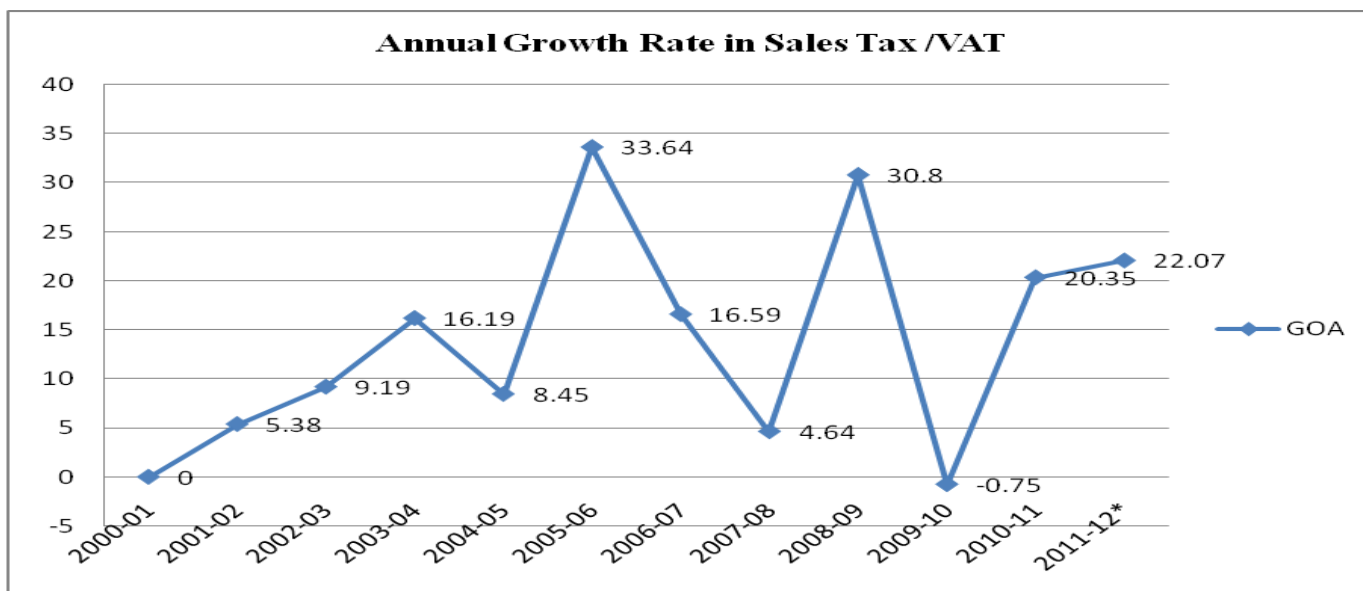
2008-09	1072.15	30.80
2009-10	1064.07	-0.75
2010-11	1280.58	20.35
2011-12	1563.23	22.07
<b>Average Growth</b>		<b>18.19</b>

Source: Economic Survey

Goa showed an increasing trend towards the annual growth rate till 2003-04 by 16.19 percent and suddenly it decreased to 8.45 percent in 2004-05. After introduction Value Added Tax growth rate showed a tremendous increase by 33.64 percent in 2005-06 as compared to the previous year. In the year 2006-07 it decreased to 16.59 percent and again showed decreasing trend in 2007-08 to 4.64 percent when there was a recession in the world market. The growth rate suddenly increased to 30.80 percent in 2008-09 and showed a negative trend of -0.75 percent in 2009-10. In the years 2010-11 and 2011-12 it showed an increasing trend by 20.35 percent and 22.07 percent respectively.

The percentage of annual growth rate in Sales Tax/VAT in the states of Goa and Kerala are graphically presented below.

#### ANNUAL GROWTH RATE IN SALES TAX/IN THE STATES OF GOA



#### ANNUAL GROWTH OF TOTAL REVENUE

The revenue receipts of the state primarily consists of three components such as states own tax revenue, states own non tax revenue and transfer from government of India.

TABLE-3

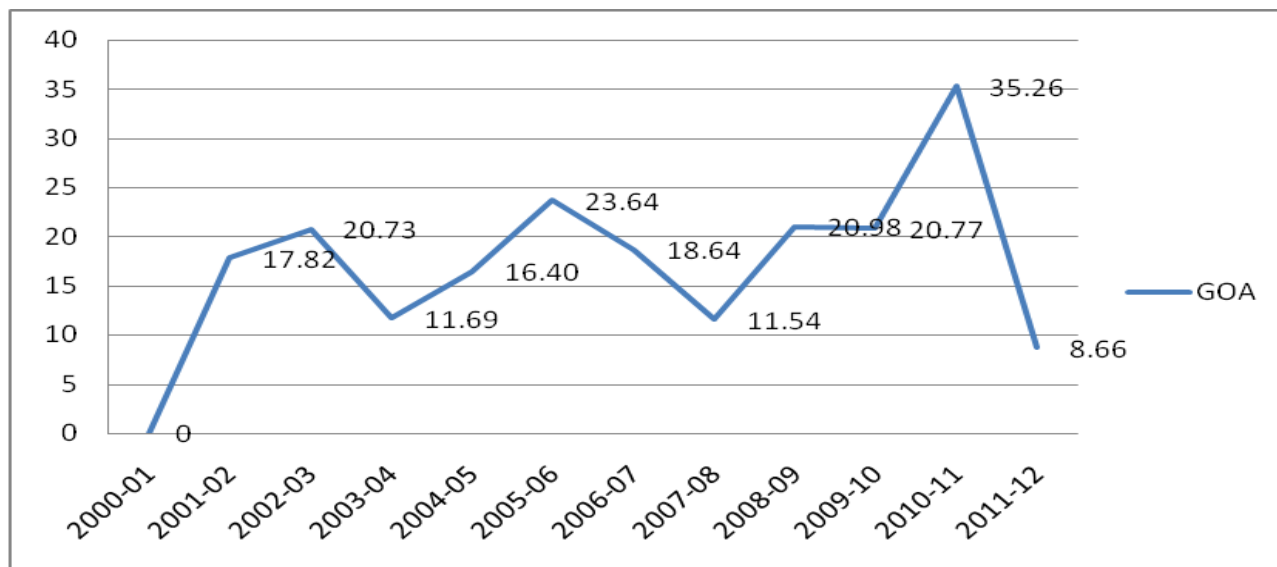
## ANNUAL GROWTH RATE OF TOTAL REVENUE IN GOA (RS IN CRORES)

Year	Total Revenue (Rs)	Growth Rate (Percent)
2000-01	789.87	
2001-02	930.59	17.82
2002-03	1,123.53	20.73
2003-04	1,254.86	11.69
2004-05	1,460.63	16.40
2005-06	1,805.90	23.64
2006-07	2,142.43	18.64
2007-08	2,389.70	11.54
2008-09	2,891.12	20.98
2009-10	3,491.55	20.77
2010-11	4,722.52	35.26
2011-12	5,131.30	8.66

Source: Economic Survey

From the above table it can be observed that annual growth rate of total revenue in the state of Goa was 17.82 percent in 2000-02 showed an upward trend to 20.73 percent in 2003-04. After implementation of Value Added Tax system in the year 2005-06 the growth rate increased to 23.64 percent from 16.40 percent in 2004-05. In the year 2007-08 it declined to 11.54 percent when there was a recession in the world market. In the years 2009-10 and 2010-11 its growth remained an average of 20.85 percent and suddenly increased to 35.26 percent. In the year 2011-12 the growth of total revenue came to single digit of 8.66 percent which was lowest in the study period of 12 years.

## ANNUAL GROWTH RATE OF TOTAL TAX REVENUE



## CONTRIBUTION OF SALES TAX /VAT IN TOTAL REVENUE:

The contribution of sales tax in total revenue of both Goa and was analyzed and the results are presented below.

TABLE -4

## CONTRIBUTION OF SALES TAX IN TOTAL REVENUE IN GOA (RS IN CRORES)

Year	Sales Tax/VAT (Rs)	Total Revenue(Rs)	Percentage of Contribution
2000-01	346.73	789.87	43.90
2001-02	365.37	930.59	39.26
2002-03	398.93	1,123.53	35.51
2003-04	463.52	1,254.86	36.94
2004-05	502.70	1,460.63	34.42
2005-06	671.83	1,805.90	37.20
2006-07	783.28	2,142.43	36.56



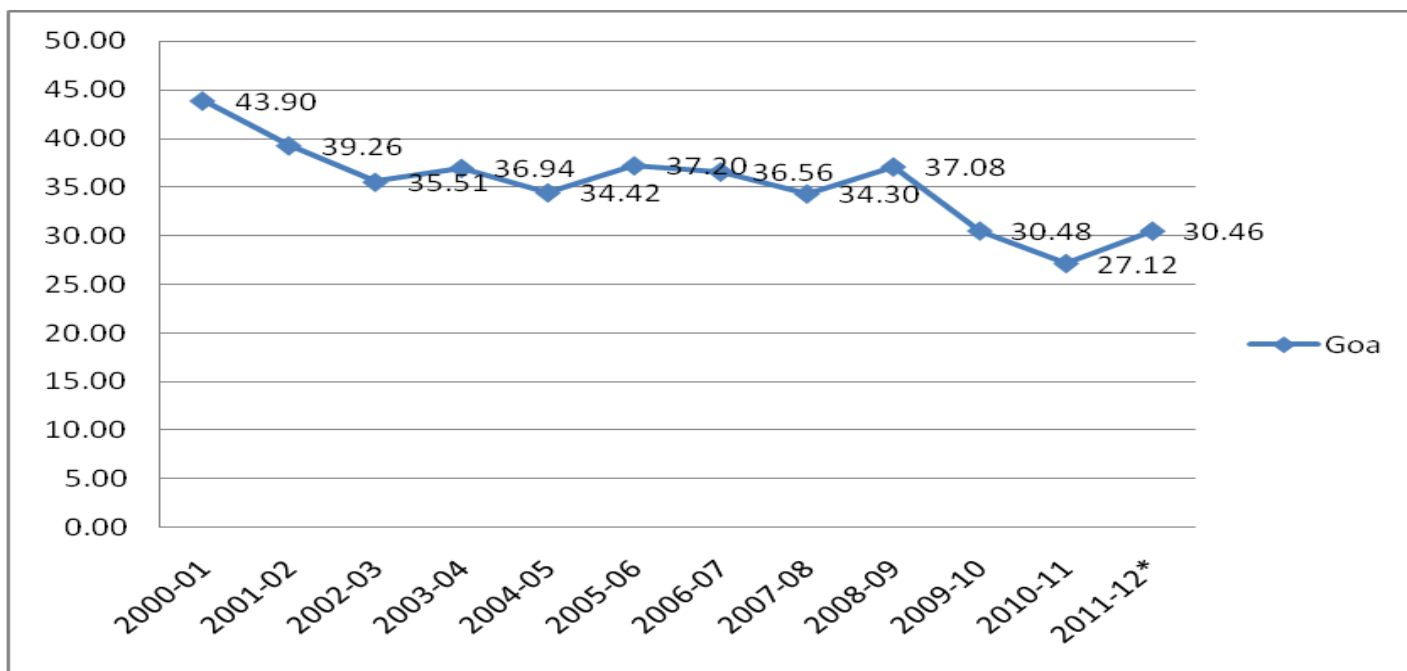
2007-08	819.66	2,389.70	34.30
2008-09	1072.15	2,891.12	37.08
2009-10	1064.07	3,491.55	30.48
2010-11	1280.58	4,722.52	27.12
2011-12	1563.23	5,131.30	30.46

Source: Goa Economic Survey

The results shows that the percentage contribution of Sales tax in total revenue in Goa has declined from 43.90 percent in 2000-01 to 39.26 percent in 2001-02. It showed 34.42 percent in 2004-05 before the year introduction of Value Added Tax system. In the year of introduction of VAT it showed 37.20 percent which is the highest post introduction VAT period. It was observed that the Sales Tax VAT contribution to total revenue went below 30 percent only in 2010-12 which is only 27.12 percent. It showed an increasing trend and reached to 30.46 percent in 2011-12.

The Percentage of Sales Tax/VAT in Total revenue in the states of Goa graphically presented below.

**CONTRIBUTION OF SALES TAX/VAT IN TOTAL REVENUE**



**COMPARISON OF ANNUAL GROWTH RATE OF OWN TAX REVENUE :**

The states own tax revenue comprises of Sales Tax/VAT, states excise duty, stamp duty, registration fees, tax on motor vehicles, goods and passenger tax, and not elsewhere classified.

TABLE -5

## ANNUAL GROWTH RATE OF OWN TAX REVENUE ((RS IN CRORES)

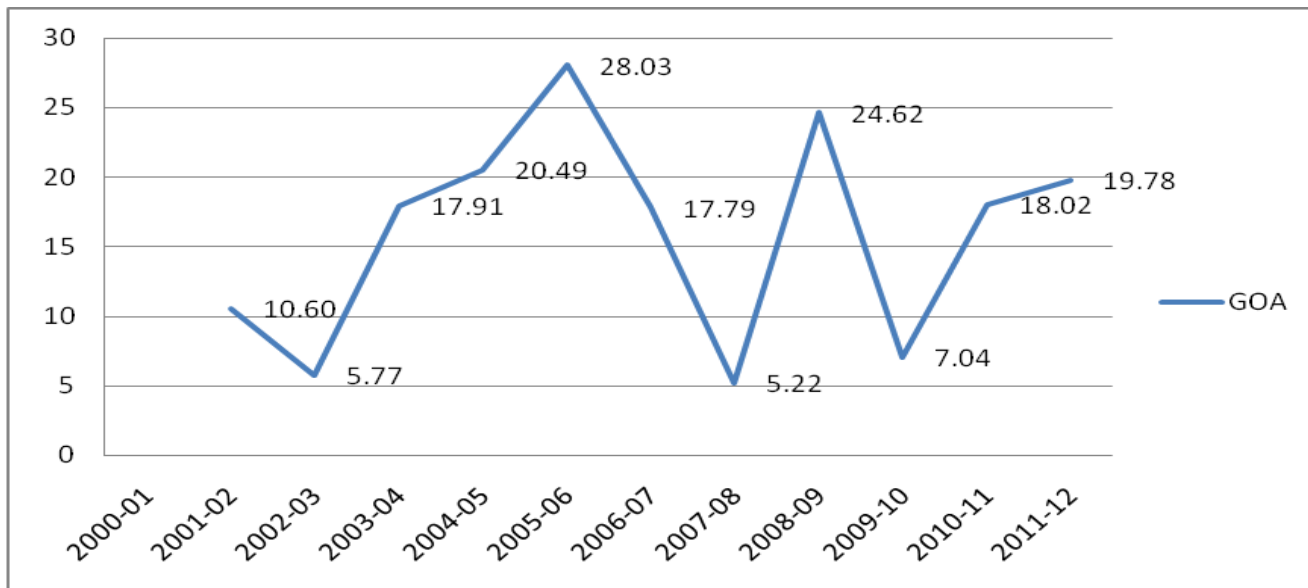
Year	Own Tax Revenue(Rs)	Percentage of Growth Rate
2000-01	515.29	
2001-02	569.90	10.60
2002-03	602.81	5.77
2003-04	710.77	17.91
2004-05	856.44	20.49
2005-06	1,096.57	28.03
2006-07	1,291.52	17.79
2007-08	1,358.92	5.22
2008-09	1,693.55	24.62
2009-10	1,812.84	7.04
2010-11	2,193.55	18.02
2011-12	2,526.81	19.78

Source: Economic Survey

The table exhibits that the annual growth rate of own tax revenue is declined from 10.60 percent to 5.77 percent in the year 2002-03. Own tax revenue showed an increase of 7.54 percent from 20.49 percent to 28.03 percent in the year 2005-06 after implementation of VAT. In the year 2007-08 the annual growth was lowest in the study period as 5.22 percent which affected to annual growth rate of own tax due to the recession in the world market. In the year 2008-09 it was recovered to 24.62 percent and again declined to 7.04 percent in 2009-10. In year 2011-12 the annual growth rate remained 19.78 percent.

The percentage of annual growth rate of own tax revenue in the states of Goa graphically presented below.

## PERCENTAGE OF ANNUAL GROWTH RATE OF OWN TAX REVENUE IN GOA



## CONTRIBUTION OF SALES TAX/VAT IN OWN TAX REVENUE:

TABLE- 6

## CONTRIBUTION OF SALES TAX IN OWN TAX REVENUE IN GOA

(Rs in Crores)

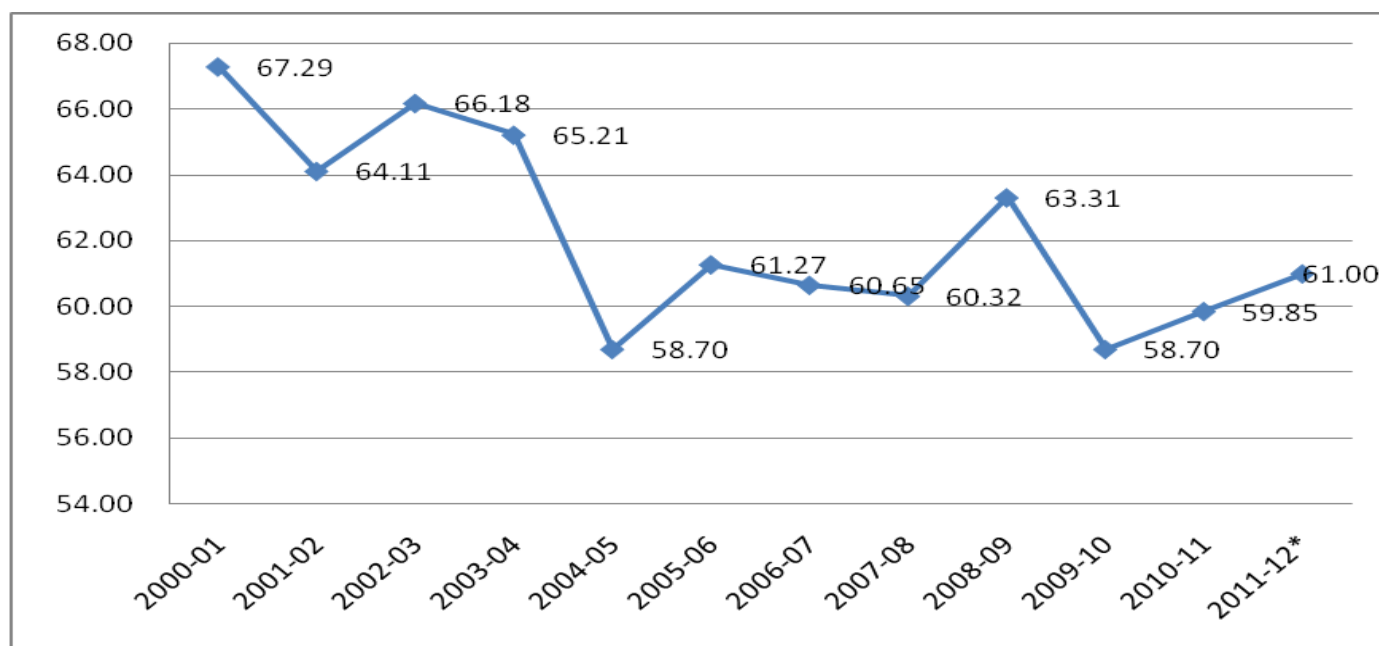
	Sales Tax/VAT(Rs)	Own Tax Revenue(Rs)	Contribution (Percent)
2000-01	346.73	515.29	67.29
2001-02	365.37	569.90	64.11
2002-03	398.93	602.81	66.18
2003-04	463.52	710.77	65.21
2004-05	502.70	856.44	58.70
2005-06	671.83	1,096.57	61.27
2006-07	783.28	1,291.52	60.65
2007-08	819.66	1,358.92	60.32

2008-09	1072.15	1,693.55	63.41
2009-10	1064.07	1,812.84	58.70
2010-11	1280.58	2,193.55	59.85
2011-12	1563.23	2,526.81	61.00

Source: Economic Survey

It is important to note that more than half of the states own tax revenue comes from Sales Tax/VAT. In the case of Goa it can be seen that sales tax contributed more than 65percent till 2003-04but it reduced to 58.70 percent. After implementation VAT in the year 2005-06 the contribution to own tax revenue increased to 64.27 percent and showed a declining trend for two years 2006-07 and 2007-08.In the year 2007-08 the contribution declined to 60.32 percent, when there was a recession in the world market. It showed a steady increase in 2008-09 of 63.41percent. In the year 2011-12 the contribution of Sales Tax/VAT to total revenue amounted to 61.00 percent.

The contribution of Sales tax /VAT in own tax revenue in the states of Goa are graphically presented below.



#### DEGREE OF VARIABILITY IN GROSS TAX REVENUE AND GROSS STATE DOMESTIC PRODUCT OF GOA:

The degree of variability in Gross Tax Revenue (GTR) and Gross State Domestic Product (GSDP) of Goa was analyzed by estimating coefficient of variation and the results are presented in Table 7.

TABLE -7

## DEGREE OF VARIABILITY IN GTR AND GSDP OF GOA

Statistic	Pre Tax Reform Period		Post Tax Reform Period	
	GTR	GSDP	GTR	GSDP
Mean	1,111.90	8,793.60	3,224.93	26,560.14
Standard Deviation	263.99	2,404.50	1,287.28	10,985.89
Coefficient of Variation (percent)	23.74	27.34	39.92	41.36

Source: Audit Reports

The results show that the degree of variability in Gross State Domestic Product (27.34 percent) is slightly high as compared to Gross Tax Revenue (23.74 percent) during pre tax reform period. The variability in Gross State Domestic Product (41.36 percent) is also slightly high as compared to Gross Tax Revenue (39.92 percent) during post tax reform period.

*Degree of Tax Buoyancy:* The degree of tax buoyancy during pre tax reform period and differential tax buoyancy during post tax reform period in Goa state were estimated by fitting a double log regression model by Ordinary Least Squares (OLS) method and the results are presented in Table 8.

TABLE- 8

## DEGREE OF TAX BUOYANCY DURING PRE AND POST TAX REFORM PERIODS IN GOA

Particulars	Regression Coefficients	t-value	Sig
Intercept( $\beta_0$ )	-.501	-.879	.405
Size of Tax Buoyancy( $\beta_1$ )	.900**	6.206	.000
Differential Intercept( $\beta_2$ )	-.168	-.258	.803
Differential Tax Buoyancy( $\beta_3$ )	.045	.278	.788
Size of Tax Buoyancy( $\beta_1 \pm \beta_3$ )	.945		
$R^2$	0.99		
Adjusted $R^2$	0.98		
Durbin-Watson Statistic	0.790		

Note: \*\* indicates significant at one per cent level.

The regression results show that the size of tax buoyancy is positively significant and less than unity during pre tax reform period illuminating that gross tax revenue is relatively inelastic. The results also imply that, on the average, one per cent increase in income accompanies with less than one per cent increase in gross tax revenue all else equal. The average propensity to tax (ratio of GTR to GSDP) shows fluctuations with the increase in GSDP during pre tax reform period. At the same time, the average propensity to tax (ratio of GTR to GSDP) also shows fluctuations with the increase in GSDP during post tax reform period.

The impact of rate of change in average propensity to tax per a unit change in income (GSDP) during pre tax reform period and differential rate of change in average propensity to tax per a unit change in income (GSDP) during post tax reform period on the average propensity to tax (ratio of GTR to GSDP) was analyzed by fitting a regression model by OLS method and the results are presented in Table 9.

TABLE- 9

## DEGREE OF TAX BUOYANCY DURING PRE AND POST TAX REFORM PERIODS IN GOA (GTR TO GSDP)

Particulars	Regression Coefficients	t-value	Sig
Intercept( $\beta_0$ )	.142 <sup>**</sup>	8.302	.000
D( $\beta_1$ )	-.013	-.677	.517
GDP( $\beta_2$ )	-1.642E-6	-.871	.409
D* GDP( $\beta_3$ )	1.410E-6	.736	.483
R <sup>2</sup>	0.49		
Adjusted R <sup>2</sup>	0.48		
Durbin-Watson Statistic	0.714		

Note: <sup>\*\*</sup> indicates significant at one per cent level.

The results indicate that both rate of change in average propensity to tax per a unit change in income (GSDP) during pre tax reform period and differential Rate of change in average propensity to tax per a unit change in income (GSDP) during post tax reform period do not have any impact on the average propensity to tax (ratio of GTR to GSDP).

**CONCLUSION:**

Pursuant to the decision taken by the Empowered Committee of State Finance Ministers and based on national consensus, Value Added Tax (VAT) was introduced in Goa w.e.f. 1.4.2005 by replacing the erstwhile Sales Tax Act. The VAT scheme immediately expanded the tax base after its inception due to the

fact that it eliminates cascading i.e. tax on tax because of set off tax paid on inputs and capital goods. Reduction in cost of domestic product because of inbuilt system of input tax credit makes domestic products competitiveness helps growth of industries, increases marketability of products having perspective impact on employment generation. Now, the VAT system has been stabilized further in the sphere of almost all economic activities in Goa. The State has achieved a healthy growth rate of tax revenue collection at 8.45 percent during 2004-05 to 16.59 percent during 2006-07 and 22.07 percent during 2011-12.

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