



## An Empirical Study on Incidence of Sales Tax

Dr. Anju Bala

Lecturer (selection grade)

Department of Economics

Govt. G.D. Girls College, Alwar (Raj.)

**Abstract:** Sales tax is a levy on the sales or elements incidental to sales. The modern form of sales taxation is of very recent origin in India but in the world history it came into existence during the depression period after the Second World War. In India, the sales tax existed during Mauryan, Rajput and Cholan periods. Sales tax as an important fiscal measure attracted many nations to cope with the financial stringencies created by the World War I. The government of India Act, 1935 envisaged federal character with a provision of provincial autonomy. The prevalent forms of sales taxes can be classified in general, according to scope, general and selective and according to the legal basis of imposition, on buyers or on sellers.

The application of incidence theory to the taxation on sales has been complicated by a wide variety of institutional circumstances, surrounding this kind of tax. Generally, sales tax is shifted to the buyer but the extent to which this shift takes place cannot be quantified. The impact of sales tax is on the seller as he pays it, in the first instance. It is thus but natural is resist and try to avoid the taxing over of its burden. Some studies done by some economist. In this study, estimating of sales tax incidence in (Rajasthan, Madhya Pradesh, Uttar Pradesh, Punjab and Haryana) (2000-2010) have been discussed. We can change the taxation policy accordingly. By knowing the actual tax payer, government can provide economic subsidy when needed.

The present study aims at computing money burden of sales tax. There will be three methods used for per capita sales tax incidence through population, through national income and Per capita commodity wise sales tax incidence. The per capita burden of sales tax and total tax of states under study reveals that the burden is the highest in Haryana followed by Punjab, Rajasthan, Madhya Pradesh and Uttar Pradesh. The per capita incidence of sales tax is higher in Haryana and Punjab which are developed states regarding industry and agriculture. While in Rajasthan, Uttar Pradesh and Madhya Pradesh which are industrially backward states, the per capita incidence of sales tax is lower. The share of sales tax in state income is negligible in each state. Punjab and Haryana are in a better position than Rajasthan, Uttar Pradesh and Madhya Pradesh. The burden of sales tax on food item was heavy in each state. Uttar Pradesh shows a poor position in comparison to other states.

**Keywords:** Sales tax incidence, population, total tax revenue, per capita sales tax revenue, net state domestic products, index number.

### I. INTRODUCTION

Generally speaking, sales tax is a tax on the sale of commodities at the retailing, wholesaling or manufacturing stages and it is a wide connotation. Which includes purchase tax too. Sales tax is a levy on the sales or elements incidental to sales. The modern form of sales taxation is of very recent origin in India but in the world history it came into existence during the depression period after the second world war. The earliest traces of sales tax can be found in Greece. Next to it one finds references of such a levy in old Indian scriptures. Manu Samriti and Kautilya Arthashastra mention such a levy like sales tax in olden times. In ancient Rome, it was also imposed in the 6 A.D. and France it existed in 1292, in Italy it was prevalent in the fifteenth century. Spain introduced "Alcabala" as a national tax in 1342. Adam Smith had condemned it as a major factor in the decay of Spain. In India, the sales tax existed during Mauryan, Rajput and Cholan periods. It also existed during Hindu period and during the time of Shershah and Akbar. However, Firuz Shah and Jahangir attempted to abolish such taxes but abolition was done only on papers and it was duly collected in spite of abolition orders not only during their periods but its existence also continued up to the Aurangzeb period and further during the East India company rule. During the 18<sup>th</sup> and 19<sup>th</sup> centuries, except for India and England sales tax did not find favour with other countries due to development of democratic government.

Originally, sales tax was justified as temporary source of revenue during the period of Crisis only, but after the first world war, sales tax as an important fiscal measure attracted many nations to cope with the financial stringencies created by the world war I Germany and France were the major countries who first adopted this tax after the war. After the second world war, it became a permanent source of revenue of the nations.

However, sales taxes have acquired particular importance in India in the present century only. The government of India Act, 1935 envisaged federal character with a provision of provincial autonomy. Naturally provinces required adequate financial resources to carry on the function allotted to them. The Bombay province was the pioneer to levy tax on tobacco in limited areas in 1938. Second in line was Central Provinces (Madhya Pradesh) which levied a retail sales tax on motor spirit and lubricants in



January, 1939. The general sales tax for the first time was imposed in 1939 by Madras. Following Madras, many provinces resorted to sales tax during and after the Second World War and presently all states levy this tax. In Punjab it was introduced in 1941 as East Punjab General Sales Tax Act. The present sales tax act was made applicable with effect from May 9, 1949. The Uttar Pradesh sales tax act, 1948 came into operation with effect from April, 1948, while Rajasthan sales tax act, 1954 came into existence with effect from April 1, 1955 and in Haryana it was introduced with effect from 5<sup>th</sup> May 1973, previously Haryana was the part of Punjab.

The prevalent forms of sales taxes can be classified in general, according to scope, general and selective and according to the legal basis of imposition, on buyers or on sellers. General sales tax may be further classified according to the point of levy into (i) single point and (ii) multiple point tax. Some of more important forms of sales tax family are the Canadian manufacturer's sales tax. The turnover tax of Germany and the value added tax of France. At present in Uttar Pradesh and Rajasthan most of the commodities are taxable at multiple point while in Haryana and Punjab the best point of taxation is in vogue.

In formulation and analysis of any tax policy, it is essential to consider the incidence aspect of taxation. It provides a clear of the distribution of the burden in determining as to on whom the direct money burden of tax falls. If the tax incidence does not correctly identify equity canon then any tax programme is bound to create and foster lopsidedness in the tax system to the disadvantage of economy as a whole. If the burden of taxes is heavy, people try to evade tax. The incidence concept is also useful in preparation of budget. Therefore, incidence of taxation has a paramount importance in our economy.

The concept of incidence in tax theory tax always been elusive. The question 'who pays the tax' and who bears the burden of tax are different concepts of taxation. In determination of who pays the tax is a simple matter of tax liability as defined by the states. Tax incidence theory is concerned with determining who bears the real burden of taxation.

In direct taxes, it can be easily determined that who bears the burden of tax. For example, in case of Income-tax, the incidence clearly falls of indirect taxes, different types of buyers and sellers are in the economy, burden of sales tax may be on the buyers or the sellers or it may be divided in any proportion between them, depending upon the elasticity of demand for a particular commodity on which tax has been imposed. If the demand for a particular commodity is perfectly inelastic, the price will rise by full amount of tax and incidence will fall completely on the buyers, on the other hand, if demand is perfectly elastic, the seller reduces selling price by reducing his profit margin by the full amount of tax and incidence will be entirely on the seller.

### **Theory of Sales Incidence: -**

The application of incidence theory to the taxation on sales has been complicated by a wide variety of institutional circumstances, surrounding this kind of tax. The taxation of sales may take place at the retail, wholesale or manufacturing stages. The tax may be, general sales tax or it may be applicable only to the selected commodities. Under sales tax, it may that virtually nothing is exempted or alternatively necessities of life such as housing, food and clothing may be removed from the tax base. Some commodities are taxed at higher rates and some at lower rates and rate differentiation in the states also prevails.

Generally, sales tax is shifted to the buyer but the extent to which this shift takes place cannot be quantified. The impact of sales tax is on the seller as he pays it, in the first instance. It is thus but natural is resist and try to avoid the taxing over of its burden. He tries to shift it by rising the prices of the taxed commodity. Besides this, it is the tax on the sales. It is payable even when there is no profit. The shifting of sales tax may depend on a number of factors, the elasticity of supply and demand of the taxed commodity and nature of competitive conditions. The greater the elasticity of supply, the more is the likelihood of the tax being shifted to the purchaser and vice versa. On the other hand, the greater the elasticity of demand, the more is the chance of tax borne by the producer or the seller. Under the conditions of pure competition, the tax is fully shifted to the buyer in the long run.

The burden of sales tax should not be assessed in isolation. The regressivity of sales tax is lessened if it is considered simultaneously with the benefit accrued from public expenditure. The incidence of benefits will depend on the pattern of investment. If priority is assigned to increasing the supply of wage-goods, the poorer sections can improve their economic position over time and the volume of employment can expand steadily.

## **II. REVIEW OF EARLIER STUDIES**

The first systematic attempt to measure tax incidence was made by the Taxation Inquiry commission (1953-54)<sup>1</sup>.

It measured the tax burden by using the household consumer expenditure data furnished by National Sample Survey in its 4<sup>th</sup> round. The burden was expressed by certain household expenditure classes. Later, two more attempts were made by the Ministry of Finance<sup>2</sup> to measure the incidence of indirect taxes for 1958-59 and 1963-64 on the basis of same methodology. In this direction, National Institute of Public Finance, New Delhi has attempted to estimate the incidence of taxation by National Sample Survey expenditure groups for the year 1973-74<sup>3</sup>. In these studies, revenue collected from the tax on each commodity or base is allocated to various National Sample Survey expenditure groups on the basis of the proportionate consumption or use of that particular commodity or base in each group in rural and urban sectors.



National Council of Applied Economics Research in its studies of the State of Gujrat (1970)<sup>4</sup> and Mysore (1972)<sup>5</sup> undertook full surveys of family budgets, specially designed to serve the objective of estimating the tax incidence on various income group in both rural and urban areas of Mysore.

The Taxation and Inquiry Commission, Uttar Pradesh (1974)<sup>6</sup> attempted to calculate the tax incidence in different income expenditure group in rural and urban groups. The committee adopted in totally the methodology used by Taxation Inquiry commission (1953-54) and Tax Research unit for the allocation of the state indirect taxes directly on the basis of the tax payment revealed by the survey schedules.

The study of Chandra Sekhar<sup>7</sup>, calculated inter-state disparities in the burden of state taxes as whole (13 states) and in particular of land revenue and general sales tax (in 1960-61 and 1965-66) and expressed the tax burden in the terms of state incomes.

Mr. B.P. Goswami<sup>8</sup> studies 17 states of India for the period of 1962-63 and 1969-70 and analyzed the total burden and sales tax burden in terms of state income.

Mr. M.C. Purohit's<sup>9</sup> study presents the estimates of the incidence of sales tax usual capital of Rajasthan by using the usual assumption that the tax is borne by the consumers according to their expenditure on taxes commodities. The study suggests that there is regressively up to the income group Rs. 301-500, but progressivity is also witnessed in the income group higher than that.

Dr. Girish K. Srivastava<sup>10</sup> had studied incidence of commercial taxes of five states (Rajasthan, Uttar Pradesh, Madhya Pradesh, Punjab and Bihar) from the period 1961-72. He calculated per capita incidence in terms of population and state income and found that in Punjab, the per capita incidence is the highest in comparison to other states.

Professor Vito Tanzi<sup>11</sup> in his article "International Tax Burden" has defined the tax burden as the ratio of tax revenue to the part of national income which is above the subsistence level so it is:

$$E = \frac{T}{Y.S}$$

Where:

E = Burden, T = tax revenue, Y = national income, and S = that part of national income required

Tom provides a defined substance standard of living to the population. But for the purpose of this formula, it is not collect the data regarding income at the subsistence level in the states.

Mr. V.P. Gandhi<sup>12</sup> (1966) attempted to study the incidence of direct and indirect taxes in agriculture, on the basis of the net or fiscal tax burden. The burden taking in to consideration the benefits of the public expenditure. He also suggested the following formula to measure tax incidence:

$$B_2 = \frac{t}{f(Y - S, W, w, i)e}$$

Where  $B_2$  = tax incidence,  $t$  = per capita tax paid,  $y$  = per capita income,  $S$  = per capital subsistence required,  $W$  = per capita wealth,  $w$  = wealth inequality measure,  $I$  = income inequality measure,  $e$  = a constant denoting the desired degree of progressivity and  $f$  = function.

Gandhi's estimates, however, do not appear to have made much headway on account of the great dearth of statistical data relating to such variables as per capita subsistence, requirement, per capita wealth, wealth and income inequality, included in his measure of incidence. The absence of reliable data has forced him to make some assumption, such as  $e = 1.5$ , about the number of variables.

Pro. D.T. Lakdawala and K.V. Nambiar<sup>13</sup> (1972) has studied commodity wise incidence of sales tax of three states (Kerla, Tamilnadu and Gujrat). He calculated commodity wise per capita incidence in term of revenue commodity wise and projected population and observed that the per capita revenue is much higher for food items in under study states.

### III. OBJECTIVES

In this study, estimating of sales tax incidence in (Rajasthan, Madhya Pradesh, Uttar Pradesh, Punjab and Haryana) (2000-2010) have been discussed.

1. With the knowledge of tax incidence, implementation of different taxes and their purpose can be fulfilled.
2. With the mode of tax, income and properties can be distributed properly in states, but it is possible only when there is equal distribution of tax incidence. Without this target cannot be completed.
3. By taxation, inflation and deflation can be stopped & controlled.
4. By estimation of tax incidence, we can some to know that who is really paying the tax so that we can change the taxation policy accordingly.



5. By knowing the actual tax payer, government can provide economic subsidy when needed.

**Hypothesis: -**

By estimation and comparative study of sales tax incidence in (Rajasthan, Madhya Pradesh, Uttar Pradesh, Punjab and Haryana). We can make tax system to suitable and profitable, which is necessary for sustain growth and development of states. By proper distribution of sales tax incidence (independent variable), state tax revenue (depend variable) can be increased which is necessary for independent of states.

**IV. METHODOLOGY**

The present study aims at computing money burden of sales tax. There will be three methods used for per capita sales tax incidence.

1. Per capita sales tax incidence through population.
2. Per capita sales tax incidence through national income.
3. Per capita commodity wise sales tax incidence.
  - (i) For per capita tax incidence, the following formula can be used: -

$$I = \frac{T}{P}$$

In which I stands for tax incidence, T stands for particular tax revenue in particular year, P stands for population in particular year.

The population figure of different states (Rajasthan, Madhya Pradesh, Uttar Pradesh, Punjab and Haryana) has been estimated by using different decennial compound growth rates pertaining to the census of 2000 was applied. The growth rate per year has been calculated on the basis of extrapolation formula:

$$r = \sqrt[n]{\frac{P_n}{P_0}} - 1 \text{ in which}$$

R stands for rate of growth, n for number of year intervening,  $P_n$  for year at the end and  $P_0$  for year of start.

- (ii) Per capita sales tax incidence through national income

In our study, it is assumed that the entire sales tax burden is passed forward to the consumers and in calculating the sales tax incidence, it is assumed that expenditure is approximately equal to income. To measure liability of sales tax per rupee the following formula has been used and then taking average liability of sales tax per rupee for the study (ET/EY) as the standard (index = 100), the index numbers for different years have been found out:

$$R = T / Y$$

Where R denotes per rupee sales tax liability

T denotes the total revenue from sales tax and

Y denotes net state domestic products as state income

- (iii) Per capita commodity wise sales tax incidence:

Per capita commodity wise sales tax incidence the following formula can be used:

$$R = C / P$$

R denotes per capita commodity wise sales tax incidence

C = Revenue each commodity wise

P = Projected population data

This project will be used Secondary Data of different states in India.

**V. RESULTS**

The per capita burden of sales tax and total tax of states under study reveals that the burden is the highest in Haryana followed by Punjab, Rajasthan, Madhya Pradesh and Uttar Pradesh. The percentage of sales tax burden to total tax burden varies between 34.67 to 38.05 in Rajasthan, 26.98 to 30.55 in Uttar Pradesh, 26.55 to 46.01 in Madhya Pradesh, 44.99 to 50.15 in Punjab and 49.37 to 64.82 in Haryana. Uttar Pradesh is the only state where sales tax has contributed small share in total tax revenue while in Punjab, Rajasthan and Haryana. It is too high.



In Rajasthan sales tax occupies 3.7945 to 4.4999 paisa while in Uttar Pradesh and Madhya Pradesh 3.6603 to 5.1341 and 3.0456 to 6.1105 paisa in a rupee during the period of study. It is, therefore, necessary to improve the administration and check the evasion of sales tax. To check the evasion, it should be made necessary that the goods consigned to a businessman in any part of the state should be delivered after the necessary documents are submitted to the concerning sales tax officer, besides this, frequent surprise checking of the stock registers of the dealers should also be done to minimize the evasion of tax.

The per capita incidence of sales tax is higher in Haryana and Punjab which are developed states regarding industry and agriculture. While in Rajasthan, Uttar Pradesh and Madhya Pradesh which are industrially backward states, the per capita incidence of sales tax is lower. The share of sales tax in state income is negligible in each state. Punjab and Haryana are in a better position than Rajasthan, Uttar Pradesh and Madhya Pradesh. The burden of sales tax on food item was heavy in each state. Uttar Pradesh shows a poor position in comparison to other states.

## VI. CONCLUSION

The per capita incidence of sales tax is higher in Haryana followed by Punjab, Rajasthan, Madhya Pradesh and Uttar Pradesh, but the share of sales tax in state's net domestic products is negligible. The per capita incidence in a rupee varied between 3.7945 to 4.4999 paisa in Rajasthan, 3.6603 to 5.1341 paisa in Uttar Pradesh, 4.8077 to 5.9441 paisa in Haryana, 3.7664 to 5.3734 paisa in Punjab and 3.0456 to 6.1105 paisa in Madhya Pradesh. It is higher in the industry developed states where per capita income is also higher. In Uttar Pradesh it is very meager. The commodity wise importance of sales tax shows that food grains and food items generate highest revenue in sales tax. The percentage of revenue from food items to sales tax was 18.02 in Rajasthan, 19.00 in Uttar Pradesh and 18.00 in Haryana in 1983-84. Other items which contribute sizeable share in sales tax revenue are building materials, motor vehicles and their parts, scientific equipment and fuel items. These five items contribute more than half of the sales tax revenue in Rajasthan while in Uttar Pradesh and Haryana these items contribute 40 percent in sales tax revenue. The per capita incidence is also higher on food items. It was Rs. 12.21 in Rajasthan, Rs. 7.26 in Uttar Pradesh and Rs 23.79 in Haryana in 1983-84.

Finally, it is hoped that the implementation of the above suggestions would go a long way towards toning up the administration of sales tax in the states under study. Besides this, it would also well up the volume of the revenue obtained through sales tax due to the removal of the legal and procedural flaws.

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