Abstract

Purpose: Taxation is one of the issues which influence every person around the world. Most of us feel bad while paying taxes; it happens while we usually pay the direct tax. But there is another form of taxation which we pay indirectly that’s indirect tax. The research purpose is to explore the justifiability of indirect taxation. This research work explores the economics behind the indirect taxation. As we are more concentrated over the taxes which we are paying directly most of us aren’t aware about the mechanism of indirect taxation this research work will as a tool of awareness for the community. Design: Borrowing from the literature on indirect tax and value added tax there theory and practice. The study is based on a close (textual) reading of literature on indirect tax and value added tax there theory and practice. Here we have also explored the economics behind the mechanism of indirect taxation via literature on public finance and economics. Findings: It is found that the value added tax system is comparatively easy from the state sales tax system. On the other hand, chances of malpractices in this system are also less from state sales tax system. Practical implications: This research work can be used as a tool for spreading awareness among the community for indirect tax.

Key words: VAT, indirect tax, sales tax, justifiability.

1. Introduction

The world “tax” brings an impression of a compulsory financial burden which citizen handle. We the people mostly see the tax as an unavoidable and a disagreeable issue. But taxation is one of the important economic tools with the government to balance the circulation of money in the economy. It affects every citizen of the country. Taxes are one of the prime sources of the government earnings. Most of the expenses born by the government are compensated by the earnings from the taxes. Making a harmonized and a fruitful taxation system is always a herculean task for the governments. It’s really tough to make happy to everyone. From a long time in India was using the sales tax as indirect tax. The sales tax was considered as inconsistent and unscientific with unequal distribution and traditional and un-conservative in nature. Apart from this there is a dominance of indirect taxes in India but citizens are less aware about it. Taxes in India are regressive in nature; due to lack of administrative control there is rapid evasion of taxes. VAT is accepted as an instrument to fill the GAP between the Indian and the foreign traders. It will provide the common platform to the traders of the both countries. This research work tries to revels the technicalities behind the Value Added Tax. This research paper is divided into the further parts like research Here we are grilling deep to check what exactly is the indirect taxation how it affects the people.
Apart from this Value added Taxation system in India and in abroad.

2) Theoretical Background

2.1) Indirect Taxation- Anthony Barnes Atkinson (1983) said that “the direct taxes are adjusted according to the individual characteristics of the tax payers on the other hand the indirect taxes are levied on the transactions irrespective of the circumstances taxpayers of buyer and seller”.

An indirect tax is laid on the commodities before they reach to the consumer it is confounded with the price of the commodity (Holaind Isidore, 2009). In the indirect tax the person or the entity that is legally obligated to pay is not presumably, selected with the deliberate understanding or prediction that final payment will be borne (James M. Buchanan, 1987). Hugh Dalton (2003) and B.N. Narayan (2002) has made it more clearly by saying that indirect taxes are those taxes which are imposed on the one person and paid partly or wholly by the another person. Taxes on commodity transactions termed as the indirect tax. As an example customs and excise duties they are initially paid by one person but the final burden of the tax is borne by the final consumer of the product. Kabelo Moeti, Tito Khalo and John Mafunisa (2007) specially said that indirect tax includes taxation on goods and services. They get levy on the households who pay it to the suppliers and they pay it to the government. Narayan et.al. Further justifies indirect taxes by stating that in the economy the indirect taxes contribute a large pool of amount in comparison to the direct taxes. This type of taxes are progressive in nature, which means the government can charge heavy tax on luxury products ad by this it can give relief to the poor people. The indirect taxes can also be justified by the principle of elasticity, the demand of the products which is inelastic in nature and injurious for public health can taxed heavily so that their consumption can come down.

An indirect tax may be of a fixed amount per unit or percentage on price. The result of imposing the indirect tax will be that the supply curve will shift upwards because to gain profit the producer will try to more profit so he will produce and supply more products. Imposing indirect tax will increase the prices and reduce the quantity of the product sold. So the indirect tax therefore shifts the supply curve and leads to less units being bought and sold at higher prices. However the price has been increased not usually by the full amount of tax will be imposed. The producer can shift some amount to the buyer, but not all of it. The amount of the incidence of taxation depends upon the relative price elasticity of demand and supply if demand will be more price elastic than supply consumer will pay more of the tax than producer if supply will be more inelastic than producer will pay more than the consumer. The amount will be fully transferred to the consumer if demand is price elastic or supply is perfectly price elastic (Andrew Gillespie, 2007). It is further explained below-

Table 1 displays the tax on the commodity, price without tax P1 and with tax P2; demand is D, Supply of the Product without Tax S1 and with tax S2. Supply is increasing with 45% as the price is increasing with the rate of 15%. The first combination C1 of demand and supply is at in the case when there is no tax demand of the commodity is 60 and supply is also 60 at this time price can be adjusted at Rs.20/. At the time when indirect get imposed and the price get increased by 15% with every increase in tax, the supply increase with the rate of 45% the second combination between demand and supply get establish when the tax will be 19% price was adjusted at Rs.22.90/ when
demand was 50 units and the supply was 73 units.

Table 1. Incidence of indirect tax on consumers and producers

<table>
<thead>
<tr>
<th>Tax In %</th>
<th>Price without Tax</th>
<th>Price with Tax</th>
<th>Demand of the Product</th>
<th>Supply of the Product without Tax</th>
<th>Supply of the Product with Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>20</td>
<td>22.3</td>
<td>110</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>20</td>
<td>22.4</td>
<td>100</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td>17</td>
<td>20</td>
<td>22.6</td>
<td>90</td>
<td>30</td>
<td>44</td>
</tr>
<tr>
<td>18</td>
<td>20</td>
<td>22.7</td>
<td>80</td>
<td>40</td>
<td>58</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>22.9</td>
<td>70</td>
<td>50</td>
<td>73</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
<td>23.0</td>
<td>60</td>
<td>60</td>
<td>87</td>
</tr>
<tr>
<td>21</td>
<td>20</td>
<td>23.2</td>
<td>50</td>
<td>70</td>
<td>102</td>
</tr>
<tr>
<td>22</td>
<td>20</td>
<td>23.3</td>
<td>40</td>
<td>80</td>
<td>116</td>
</tr>
<tr>
<td>23</td>
<td>20</td>
<td>23.5</td>
<td>30</td>
<td>90</td>
<td>131</td>
</tr>
<tr>
<td>24</td>
<td>20</td>
<td>23.6</td>
<td>20</td>
<td>100</td>
<td>145</td>
</tr>
</tbody>
</table>

Figure 1. Incidence of indirect tax on consumers and producers
Value Added Tax A Review
2.2 VALUE ADDED TAX

A German industrialist Dr. Wilhelm von Siemens proposed this concept of value added tax in 1918. Later in the year 1954 it was introduced in France and became the most important source of finance for the government.

It is broad based tax levied on the commodity sales up to and ends including, at least the manufacturing stage, with systematic offerings of tax charged on the commodities purchased as input (Liam P. Ebrill, 2001). Value added method of tax collection is different from the non VAT method. It is imposed and collected at different points of value addition which is known as multipoint tax collection (Ramesh Singh, 2008). The Value Added Tax is levied on the every stage of the production (James M. Bickley, 2003). Under Value Added Tax the value added is that a producer whether he/she is a manufacturer, distributor, advertising agent, hairdresser, farmer, race horse trainer or a circus owner adds to his raw material or purchase before selling the new improved (Alan A. Tait, 1988). Bickley et al. explained more clearly that the value is the difference between firm’s sales and the purchase of input from other firm. Simply it’s the amount which a firm contributes to the product or service applying its factors of production. Tait et al. further gave a formula to calculate value:

\[ \text{Value Added} = \text{Wages} + \text{Profit} = \text{Output} - \text{Input} \]

Under Section 2 of THE UTTARANCHAL VALUE ADDED TAX ACT, 2005 Act No. 27 of 2005- "Value of Goods" means the value as ascertained from the purchase invoice(s)/bill(s) and includes insurance charges, excise duties, countervailing duties, sales tax, transport charges, freight charges and all other charges incidental to the transaction of the goods. In case where the purchase invoice(s)/bill(s) are not produced or when the goods are acquired or obtained otherwise than by way of purchase, the value of goods shall be the value at which the goods of like kind or quality are sold or are capable of being sold in open market.

Value Added Tax (VAT) is a general consumption tax which is directly proportional to the price of goods services. It is collected fractionally, that is on each transaction in the economy chain and it is neutral (Jean Knödel, 2008). VAT is common in the West European counties (Shaikh, 2006)

From the above definitions, it is obvious that VAT is an indirect tax which is the most recent and important experimentation done on the modern tax system. Like its predecessor, which is the sales tax, VAT is also levied on the sale of goods and services (GST). VAT is a broad based tax as it also covers the value added to each commodity by a firm during all stages of production and distribution. It is a modern tax system to improve the collection of taxes, to increase efficiency and to lessen tax evasion.

2.2.1 Types of VAT

There are three possible types or variants of VAT: the product-type (P-VAT), the income-type (I-VAT), and the consumption-type (C-VAT). The meaning of these three variants of VAT can be best understood by comparison of income and expenditure aggregates in the national income accounts. Expenditures on the gross domestic product (GDP) consist of final private consumption expenditure (c), gross investment expenditure (I), final government non-wages expenditure on goods and services (Gc) government expenditure on wages and salaries (Gw), and the trade balance (the values of exported (x) less imported (m)) goods and non factor service (Howell,1995).
GDP = C + I + Gc + Gw + (x-m)
While gross domestic income (GDI) is the sum of factor income payments (wages, interest, profits, etc) - commonly referred to as the value added (v) of production – and depreciation (D)
GDI = V + D
Above equation can be stated in terms of either factor cost (i.e., exclusive of indirect taxes net of subsidies) or market price (i.e., inclusive of indirect taxes net of subsidies)

A. Product Type VAT (P-VAT)
Broadly speaking a P-VAT taxes all expenditure (except government wage expenditure, which is infeasible to tax under any variants of VAT) on GDP if implemented on the origin principle, and on GDP adjusted for the trade balance if implemented on destination principle. This variant does not allow the deduction of depreciation from the tax base in subsequent years either. Assuming for the time being that the origin principle is employed, so that exports, being of domestic origin, are taxed but imports, whose value originated from abroad, are not. Then the base of a P-VAT is simply the sum of all expenditures on GDP (hence its name as a product type VAT) net of government wage expenditure. This base can be expressed as follows: (Howell, 1995)
Base of P-VAT = GDP - Gw = C + I + Gc + (x - m)

B. Income Type VAT (I-VAT)
Gross investment expenditure, which is part of the base of a P-VAT, reflects an economy’s actual aggregate expenditure on capital goods (i.e. gross capital formation) in a given period. Part of this expenditure, however, is used to compensate for capital goods that have been consumed or depreciated. While depreciation as such is merely a book-keeping entry and does not represent an actual economic transaction, it does affect the computation of profitability, and thus the value added, of business. An I-VAT excludes depreciation from its base. It therefore taxes the net, rather than the gross, investment expenditure (Howell, 1995).
Base of I-VAT = GDP - Gw - D = C + (I - D) + Gc + (x - m)

C. Consumption Type VAT (C-VAT)
If, in addition to depreciation, expenditures on capital goods, which contribute to a net augmentation of the capital stock are also not taxed, then the entire gross investment expenditure would in effect be excluded from the tax base. The resultant base would be the base of a C-VAT:
Base of C-VAT = GDP - Gw - I = C + Gc + (x - m)

In this way, the variants of VAT differ in its treatment of capital goods. Among these three types of VAT, the consumption variant is the most superior form of VAT and is universally practiced. The reasons for the popularity of this type are as follows:
- This variant doesn’t affect decision regarding investment and growth since it relieves investment from any tax burden
- Likewise, the consumption variant is attractive from point of view of tax administration as there is no need to distinguish between the purchase of intermediate goods and capital goods under this variant which is necessary under the other two variants. Unlike the consumption variant, the other two variants stimulate firms to classify their purchases of capital goods as intermediate goods leading to complication for the administration.
- Furthermore, the consumption variant is more attractive than the income variants from the consideration of foreign trade, because the consumption variants are compatible with the destination principle of taxation, which has been used by many countries. Under the destination principle, the tax base is consumption and hence

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export is relieved completely from VAT. The consumption variant, thus, possesses several advantages over the income and the product type variants. This is why, the consumption-type variants have been widely used in several countries in Europe and elsewhere in recent year.

2.2.2 Computation Of VAT
There are three basic methods by which VAT can be calculate. They are: A. Tax Credit Method, B. Subtraction Method and C. Addition Method D. Invoice Method. The first two methods are frequently used while the third method, Addition Method, is rarely used.

A. Credit Method
This method is also known as the Invoice Method. Under this method, tax is levied on the total value of sales and it requires that the amount of VAT charged be explicitly stated on the invoice associated with any taxable transaction. The amount of tax merchant submits of tax authorities is simply the difference between the tax collected on his sales and the tax he paid on his purchases (Khadka, 1997). Since the value added (VA) is sale value (SV) minus cost of purchased inputs (CPI), a given tax rate, say (t), the tax revenue (T) will be:

$$ T = t \cdot SV - t \cdot CPI $$

Since business is required to state the tax on invoices under the tax credit method, it facilitates border tax adjustments. This implies that the amount of tax that levied on export can be refunded to exporters. Similarly, this method is effective under the destination principle where exports are zero-rated and the tax credit chain is not broken. It also provides the facility of cross checking. This method is particularly useful if it is desired to reduce the rate of value added tax at certain stage in the process of production and distribution. Since this mechanism puts an equal burden of taxation on both imports and domestic products, it is further preferred. The tax credit method, thus, is desirable for several reasons and has been adopted by many countries of the world.

The following example may help understand the subtraction method in a better way. Let’s suppose an importer imported machinery for Rs. 20,000.00. VAT was paid on its import. This product passes through three stages before reaching to the final consumer. The value added (profit) by each businessman on the cost price are: importer - 30%, Manufacturer - 50%, Wholesaler - 20% and Retailer - 10%. The VAT is calculated in the following table with all the given information.

### Table 2
Calculation of VAT under the Credit Method (in Rs.)

<table>
<thead>
<tr>
<th>Stages</th>
<th>CPI-VAT</th>
<th>Added Value</th>
<th>SV-VAT</th>
<th>VAT @ 13%</th>
<th>SV+VA T</th>
<th>VAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imported Machinery</td>
<td>20000</td>
<td>-</td>
<td>-</td>
<td>2600</td>
<td>-</td>
<td>2600</td>
</tr>
<tr>
<td>Importer to Manufacturer</td>
<td>20000</td>
<td>6000</td>
<td>26000</td>
<td>3380</td>
<td>29380</td>
<td></td>
</tr>
<tr>
<td>Manufacturing to Wholesaler</td>
<td>26000</td>
<td>13000</td>
<td>39000</td>
<td>5070</td>
<td>44070</td>
<td>1690</td>
</tr>
<tr>
<td>Wholesaler to Retailer</td>
<td>39000</td>
<td>7800</td>
<td>46800</td>
<td>6084</td>
<td>52884</td>
<td>1014</td>
</tr>
<tr>
<td>Retailer to Customer</td>
<td>46800</td>
<td>4680</td>
<td>51480</td>
<td>6692.4</td>
<td>58172.4</td>
<td>608.4</td>
</tr>
</tbody>
</table>

B. Subtraction Method

**Value Added Tax A Review**
Under this method, each merchant’s tax liability is computed by applying the applicable VAT rate to the difference between his total sales (inclusive of the VAT element in his sales price) and his total purchases (inclusive of the VAT element in his purchase price). Hence, unlike the credit method, the amount of VAT connected with a taxable transaction is not required to be explicitly stated on the associated invoice (Howell, 1995). This method is appropriate for the consumption variant of VAT. The tax revenue under this method can be calculated by using this formula.

\[ T = t \times (SV - CPI) \]

### Table 3: Calculation of VAT under Subtraction Method (in Rs.)

<table>
<thead>
<tr>
<th>Phases of production and Distribution</th>
<th>Net Purchase Price (CPI)</th>
<th>Net Sales (SV)</th>
<th>Value Added (SV-CPI)</th>
<th>VAT @13%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials Producer</td>
<td>-</td>
<td>3000.00</td>
<td>3000.00</td>
<td>390.00</td>
</tr>
<tr>
<td>Producer</td>
<td>3000.00</td>
<td>4500.00</td>
<td>1500.00</td>
<td>195.00</td>
</tr>
<tr>
<td>Wholesaler</td>
<td>4500.00</td>
<td>5800.00</td>
<td>1300.00</td>
<td>169.00</td>
</tr>
<tr>
<td>Retailer</td>
<td>5800.00</td>
<td>6500.00</td>
<td>700.00</td>
<td>91.00</td>
</tr>
<tr>
<td>Total</td>
<td>13300.00</td>
<td>19800.00</td>
<td>6500.00</td>
<td>845.00</td>
</tr>
</tbody>
</table>

### C. Addition Method

Under this method, the tax base is obtained by adding the incomes produced by the firm or by adding the payment made by the firm to the factors of production employed in turning out the product, such as wages, interest, rent, royalties and profits. This method is appropriate for the income type of VAT.

Tax on sales minus tax on purchases. Any excess tax paid on purchases is allowed to be carried forward for set off against future tax liabilities. This method is also called as Tax Credit Method or Voucher Method. Under the Central Excise Act this method is known as Cenvat Credit. Even though tax evasion cannot be ruled out completely yet this method ensures that it is kept under check as only on raising an invoice for sale the tax paid on purchases can be set off.

### D. Invoice Method

This is the most popular and commonly used method. In India this method is being followed both in Central Excise as well as State VAT. Under this method tax is charged on the sale value, which is reflected on the invoice issued to the buyer. The tax charged by the seller which is reflected on the purchase invoice is taken into account for set off thus the net tax payable will be known as Cenvat Credit. Even though tax evasion cannot be ruled out completely yet this method ensures that it is kept under check as only on raising an invoice for sale the tax paid on purchases can be set off.

### 2.2.3 Principles of VAT

VAT can be implemented under either the origin or the destination principle.

#### A. Original Principle

Under this method, the tax base is obtained by adding the incomes produced by the firm. This implies that all exports are taxable and all imports are non-taxable. Where there is a border and cross-country trade, this principle gets important to imported goods or services over domestic production. Countries with international boundaries do not prefer to have this principle. But in European community (EC) where there is a common border this principle of taxation is essential. The main reason behind not following this principle is of revenue loss. It also discourages the export either directly or indirectly.

The most popular form of principle adopted by a large number of countries is destination...
principle. Under this principle, goods or services are taxed on at the place where they are produced but the place where they are consumed. This means all imports are taxed while all kinds of goods and services are free to taxation. The main advantage of this principle is non-discrimination between import and internal production. This principle is favorable for promoting export. Many countries follow this principle because they are eager to boost export.

2.3 VAT in India and Uttarakhand-
In India all the States have their separate Value Added Tax Act and as per the present position.

There are two slabs on which tax would be levied. The first of 4% cover all essential items. The second of 10% covers all luxury items. In addition special slabs are proposed in which 1% for bullion and jewellery, 20% for Non Essential Goods. Petroleum products are not included in these VAT rates separate rates are notified by the state governments. Issuing invoice under Value Added Tax Act is mandatory. No set off or input credit is allowed till the original tax invoice is produced wherein tax is clearly charged separately in the invoice. In the new VAT scheme penalties are increased. The table 2.3.1 shows the total revenue of the government of Uttarakhand and the sales/value added tax from 2001-09. It shows that how the revenue from VAT has been increased as in 2004-05 it was 793 Cr. But after implementation of VAT it went up to 1014.33 Cr. and in 2008-09 it was 1910.64 Cr.

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales Tax/ VAT</th>
<th>Total revenue raised by State Government</th>
<th>% of sales tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001-02</td>
<td>486.13</td>
<td>970.88</td>
<td>50.07</td>
</tr>
<tr>
<td>2002-03</td>
<td>548.84</td>
<td>1,018.87</td>
<td>53.87</td>
</tr>
<tr>
<td>2003-04</td>
<td>661.96</td>
<td>1225.97</td>
<td>53.99</td>
</tr>
<tr>
<td>2004-05</td>
<td>793</td>
<td>1,444.36</td>
<td>54.90</td>
</tr>
<tr>
<td>2005-06</td>
<td>1014.33</td>
<td>1,784.69</td>
<td>56.84</td>
</tr>
<tr>
<td>2006-07</td>
<td>1361.42</td>
<td>2,513.78</td>
<td>54.16</td>
</tr>
<tr>
<td>2007-08</td>
<td>1627.41</td>
<td>2,738.75</td>
<td>59.42</td>
</tr>
<tr>
<td>2008-09</td>
<td>1910.64</td>
<td>3,044.91</td>
<td>62.75</td>
</tr>
</tbody>
</table>

Table: 2.3.1: Total revenue raised by the state government of Uttarakhand and revenue raised through sales tax/VAT.

Source: Comptroller and auditor General of India.

The Conclusion: VAT has changed the old pattern of business. Small retailers require maintaining more accounts or paying composition money which cannot be collected from the customers so it is a problem for them. From the government’s point of view as a sample of Uttarakhand in the last 10 years the revenue of the state government has gone up, and the tax evasion has reduced as well because VAT system demands all the information in black & white. India is stepping towards the GST; there is a hope that it will make the economic efficiency of the country. GST is the integration of goods and service tax.

A study by PWC titled as “VAT Survey 2006 Smooth transition, unfinished agenda” on the experiences of Indian business and industry while switching over from the sales tax to the VAT reviled that, the VAT rates are increased in comparison to the sales tax but there is a uniformity in the which clearly let know that VAT has also reduced the
unhealthy competition among the states as the tax rates are in the same slabs. More than half of the traders make known there is no increase in the prices of the products. The work-contractors agree that levy of the works contract tax under VAT are more complex than from earlier sales tax. In spite of these complexities Vat is the choice of the work contractors because composition option available for the works contractors under the VAT system is simpler to the sales tax. A part from this the traders are facing least difficulty in the input tax credit on transition stocks, availability of input tax credits on capital goods, transactions in the VAT regime are smooth than sales tax. When it was asked that do the traders and the industry feels that the sales tax department’s employees are ready for the VAT the response was they are partially prepare for it on the other hand it was found regarding the communication the department is effective. The most importantly profit margins are not changed in the VAT regime. It is also believed that administrative and procedural matters have improved from earlier but the officials are not more responsive in dealing with queries under the VAT. At the end it concluded that industry agrees to switch over to the GST.
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