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GOODS AND SERVICES TAX AND ITS SUPPLY CHAIN IMPLICATIONS

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Abstract

In any production system input passes through gradual transformation and final product comes out of productive system. In case of Sales Tax, end users are liable to pay the tax to the government but the introduction of Goods and Services Tax (GST) ensures payment of tax by each participating agent in the supply chain for every exchange taking place. "Supply' and 'Supply Chain' are thus appearing to be the significant terms associated with the implementation process of GST.

In addition to the expected benefits of reduced price of products for consumers, simplification of tax system, unification of markets resulting in national market for goods and services, it is also expected to result in integration of informal sector with the formal sector which is essential for the development of an economy. The above is expected to have an important impact on the

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economy because such integration makes govt. taxation policies successful in affecting each and every income generating activity/sector.

The supply chain implications of GST in Indian context may be summarized as follows:Abolition of warehouses and directly sending the products to the Distributor-but that will raise the question of viability in terms of distribution time, freight cost etc. although that may reduce material handling cost, labour / human resource cost, rental cost of warehousesTransformation of traditional warehouses/godowns into big modernized warehouse especially in the metropolitan cities - Cities with locational advantages will experience increase in price of land/space.Differential impact of GST on distribution network of different companies-The new rates of taxation on specific type of goods or services in comparison to multiple taxes which were paid in the pre-GST era would be the reason for differential impact on different companies/products/services.

The introduction of GST is also associated with apprehensions regarding stability of jobs for the existing workforce in private and public sectors of the economy, drastic changes regarding the existing facility location of the companies, further existence of multiple-taxation/ cascading and many others. This paper is an attempt to discuss the expected changes, opportunities and uncertainties associated with introduction of GST in Indian context.

1. Introduction

The burden of tax in Direct Tax falls directly on the taxpayer whereas the same may be shifted to someone else in case of Indirect Taxes. Indirect Taxes are usually imposed on manufacturing, sale and purchase of goods and services. Tax revenue is the major source of earning for the Government and taxation may be used as weapon for reducing inequality in a country. However, in order to reduce inequality in a country, there should be increasing contribution of Direct Taxes, instead of Indirect Taxes, to the total taxes of the country.

In India, the data on contribution of Direct and Indirect Taxes to Total Taxes showed a gradual increase in percentage share of Direct Taxes (comprising Income Tax, Corporation Tax and others) and a declining share of Indirect Taxes (comprising of Customs Duties, Excise Duties, Service Taxes etc.) till 2009-2010, after which the picture was somewhat reversed for the following years till recently as evident from the following table.

Financial year	% Share in Total Taxes	
	Direct Taxes	**Indirect Taxes**
2000-01	36.3	63.7
2001-02	37.1	62.9
2002-03	38.5	61.5
2003-04	41.4	58.6
2004-05	43.8	56.2
2005-06	45.3	54.7
2006-07	48.7	51.3
2007-08	53.0	47.0
2008-09	55.3	44.7
2009-10	60.6	39.4
2010-11	56.4	43.6
2011-12	55.8	44.2
2012-13	54.1	45.9
2013-14	56.3	43.7
2014-15(P)	56.1	43.9

Source: Govt. of India, Ministry of Statistics and Programme Implementation (2017)

Rolling out of GST has been considered a major indirect tax reform in India with the objective of unification of the multitude of indirect taxes levied by the Central Government as Service Tax, Customs Duty, Excise Duty, Central Sales Tax and State Governments as Entry Tax, Sales Tax/Value Added Tax etc. It has been expected to benefit the final consumer by reducing the incidence of tax through reduction in cascading effect of indirect taxation.

2. GST – Nature of the Tax

In a production system, inputs pass through many stages and gradual transformation of inputs takes place before the final product/output comes out of the process. In such a sequential process, output of one stage becomes the input of the immediately following stage of production. Imposition of taxes on material/input at every stage of its transformation would result in multiple taxation of the material in a cascading pattern.

A Value Added Tax (VAT) / Goods and Services Tax (GST) is a tax on consumption of goods and services which may serve as a major source of earning for any government. In a VAT scheme of taxation, the practice is to impose tax only on the value added at each stage of production and it is paid by every participating seller in the supply chain whereas Sales Tax is paid on the aggregate value of a product exchanged and paid only by the end user irrespective of previous exchanges that take place in the process of transformation of the basic raw material. As GST follows the VAT format of taxation, tax revenue is expected to be high due to greater buoyancy of VAT structure. Buoyancy of tax structure indicates the effectiveness of tax structure to mobilize revenue for the government with GDP growth. Improvement in buoyancy needs changes in tax administration and tax policies also to achieve it (Chandrasekhar et. al, 2014).

GST format of taxation is there in more than 150 countries of the world. But, in other countries, mostly, there is a single GST whereas in India introduction of dual GST is there. Central Goods & Services Tax (CGST) and State Goods & Services Tax (SGST) are levied by the Central and State Governments respectively- on a common base of every supply of goods and services subsuming a number of Central and State Government Taxes. There is also Integrated GST (IGST) for interstate transfer of goods and services. Imported goods are to be treated as inter-state supply which is subject to IGST, in addition to applicable Customs Duty. Some international countries have experienced inflationary price rise (as in Singapore in 1994) after implementation of GST (Pachisia, 2016). That possibility remains there if the new tax rate exceeds the existing rate.

In India, the step to move towards GST was first taken in the budget of 2006-2007. It was planned to introduce it from 1st April, 2010 but it was not possible due to various reasons. A number of roll out dates were missed before the final roll out date on 1st July, 2017 was decided upon.

We know that the 'Duties' are imposed on manufacturing of goods irrespective of earning generated from it. In contrast, 'Taxes' are imposed on earnings generated from sale of output. 'Goods and Services Tax Concept and Status' note (Director General of Taxpayer Services, 2016) explained that the GST would be applicable on "Supply" of goods and services as against the previous concepts of tax on manufacturing of goods or on sale of goods. This feature of GST indicates that it would have specific and important supply chain implications. Introduction of GST (Director General of Taxpayer Services, 2016) is expected to address the sustainability of the tax structure issue by

i) Amalgamating a large number of Central and State taxes

ii) Reducing the overall tax burden on products and benefitting the customers in terms of reduced price

iii) Making Indian products more competitive in domestic and international markets

iv) Ensuring transparency in taxation and ease of administration.

As GST is a destination-based consumption taxation as against the previously followed principle of origin-based taxation, its introduction makes the supply chain stakeholders think about redesigning the distribution network and facility location more carefully.

3. Objective of the Study

It needs no saying that it is impossible to examine here the impact of GST on the total transportation and logistics scenario in the country. We may only concentrate on certain specific aspects of the issue, to ensure a modicum of justice to the subject. We shall do mainly a descriptive analysis of the implications of GST for facility location and also the expected transformation in the nature of storage facilities which are important considerations in India's logistics scenario.

4. Analysis of Expected Impacts

4.1 Expected Change of Facility Location

Distribution activity under a logistics system is closely connected with warehouse / facility location. There is an apprehension that the facility location of companies in the GST scenario may change for certain companies. There is the possibility of establishment of centralised distribution systems through consolidation, thereby replacing the existing vast distribution network. The main reason behind such a structural change is that, even though stock transfer from warehouse to warehouse, located in different states, did not involve Central Sales Tax payment in the pre-GST regime, inter-state sale of products did attract payment of additional percentage of Central Sales Tax. After introduction of GST, all interstate transfers (warehouse to warehouse as well as transfer for sale) are now subject to IGST. Therefore, maintaining local area warehouses for keeping stock transferred from other states is not going to give any extra advantage. Consolidation and centralised warehousing may be the possible alternative to the above system. GST will subsume many indirect taxes presently charged by the State Government as the VAT, Octroi, and Entry Tax and by the Central Government as Excise and Service Tax.

Network redesigning will have to take into account different types of costs as the manufacturing costs, logistics cost, different types of incentives etc. Redesigning network will also depend on freight cost.

A simple distribution system follows the following path for movement of goods from Regional Distribution Centre (RDC) to Retailer:

RDC → Warehouse → Distributor → Retailer

Abolition of warehouses and directly sending the products to the Distributor will raise the question of viability in terms of distribution time, freight cost etc. although that may reduce material handling cost, labour / human resource cost, rental cost of warehouses. Cost comparison under the two situations would have to be done to ensure optimisation. In case of centralised distribution system, there will be the need for fast movement of goods from RDC to the Distributor. The existing payment mode is also an important consideration. If it is on advance payment mode, delay in supply will affect the Return on Investment (ROI) for the Distributor. Post delivery payment mode will affect the company's ROI on the other hand.

Warehouse network location in the pre-GST era gave importance to minimization of indirect taxes. This is going to change in the post-GST scenario. Now, the driving issue is going to be identification of best possible warehouse location from the view point of operational efficiency, mainly by reduction in distribution cost, as well as in terms of consumer demand and sales. Almost every organization has been hiring professionals to find out the best location for setting up warehouses for their organization. Every organization has been participating in a rat race to optimize the cost & get competitive advantage over its competitors. Such consolidation may also affect the employment of labour or the job scenario in near future.

4.2 Transformation of Godowns into Warehouses and Consolidation of Warehouses

In the Indian context, 25 years ago, the word 'warehouse' was not very common but people knew about 'godowns'. Godowns are storage places for any kind of material. Now, however, there is a definite movement towards warehouses from godowns.

In simple language, commercial building for storage of goods with modernized facility is called warehouse. Modernized facility includes good flooring, proper loading/ unloading docks, usage of material handling equipment (high reach truck, fork lift, HOPT), Warehouse Management System, usage of ERP system like SAP/Oracle, usage of RFID, usage of bar-coding, bar-code scanning facility, racking, palletized movement, full pallet loading, palletized dispatch, usage of standardized pallets & many more. Above facilities are felt necessary for easy handling and safe storage of goods especially for storage at a large scale.

As we are moving towards modernized warehouse system we may rename the godown as traditional warehouse. So there will be two types of warehouses available in India-traditional warehouse & modern warehouse.

Consolidation of warehouse will be a major feature in the post GST scenario as keeping warehouses at different states will not be of any advantage from the point of view of indirect tax payment. Number of warehouses will come down & will merge with other warehouses or it will be a big modern warehouse totally in a new place. There may thus be reduction in warehouses by a significant percentage. The above changes will not only help in deriving the benefit of GST in terms of reduced indirect tax, but will also reduce the operational hazard of maintaining/ controlling too many warehouses located at different corners of India. GST may not, however, change the existing network or number of warehouses drastically overnight; instead, a gradual change towards consolidation will take place to reduce overhead cost.

As for example-an organization having seven or eight warehouses at North Eastern part of India may reduce the number to one/two or maximum three warehouses. Small warehouses may merge with big warehouses located at Guwahati or Silchar. At present they are using hub & spoke distribution model but gradually it will change.

In bigger cities (mostly metro cities) small traditional warehouses will be of little use to big organizations as these will be unable to provide any value added services/facilities to the users while increasing the logistics costs only. Companies will now be primarily looking for big & modernized warehouses only.

Taking the case of an outlying small city first, Silchar, which serves as a gateway for the North-Eastern states, would play a crucial role in terms of warehousing at North East in post GST scenario. Landlords of such places with locational/strategic importance will enjoy the benefits for both the types of storage options – godowns & warehouses. Small players will use the godowns & bigger players will shift from godowns to modern warehouses. This will also change the warehouse rental scenario dramatically. Current rental for godown at Silchar / Jorhat is hovering between Rs. 6/square feet to Rs. 12/square feet. It may definitely jump & cross Rs. 20/square feet soon if warehouse owners provide infrastructural facility & modern technological support. Therefore the roll-out of GST by the Indian Government is expected to play a major role in the growth of the logistics industry and its warehousing business. It will not only be true for

Silchar / Jorhat, but also for other small cities having locational / strategic importance, where consolidated warehouses will be advantageous for future.

Metro cities which are main centers of demand generation will continue to have warehouses, but expansion of small warehouses & establishment of bigger warehouses closing down smaller ones will be difficult due to limited availability of land and high rentals. At Okhla, a centrally located place in the city of Delhi having locational & logistical advantages, for example, possibility of expansion is very limited due to huge rental charges (Rs. 30/square feet). Obviously big modernized warehouses will have to shift from metro cities to nearby suburban areas to continue their businesses as usual.

When we consider the state of Maharastra, many warehouses are located in Bhiwandi, a city in the state located 20 km away from Mumbai to the North-East of it. If the companies shift their warehouses from Bhiwandi to other locations to cater to other areas of western India, distance between Mumbai city stock-distributors & warehouses will increase. This will result in Mumbai city distributors having to either hold more inventory or face the possibility of stock outs, thereby increasing their operational cost. They do not have the choice of going for bigger warehouses in Mumbai city itself where current rental charges vary between Rs. 100/square feet to Rs. 250/ square feet along with scarcity of space as well.

4.3 Differential Impact

Introduction of GST is expected to affect distribution network of different companies differently. The new rates of taxation on specific types of goods or services, in comparison to multiple taxes paid previously in the pre-GST era, would be a reason for differential impact on different companies/products/services. For example, FMCG companies paid nearly 24-25% taxes as excise duty, VAT, entry tax etc. which were much higher than the new rate of around 18% of GST. If we talk about the overall FMCG products, GST rates are lower (Business Line, 21.5.2017). On the other hand, for Services, the opposite is the case. Previously, Services were taxed at a rate of 15%. But in the GST era, bulk of the services is being taxed at a rate of 18%. Varieties of activity come under Services, such as transportation, banking, construction, social and personal services, storage and communication etc. Schedule of GST Rates for Services as approved by GST Council in its 14th meeting held on 19th May, 2017 specifies varied rate of taxation from 5% to 28% for different types of services which have been undergoing further changes.

The bulk of the transportation services are going to be taxed at a rate of 5% whereas 'Transport of goods in containers by rail by any person other than Indian Railways' and 'Transport of passengers by air in other than economy class' are going to be taxed at a rate of 12% (With Full Input Tax Credit). Sourcing and manufacturing decisions will be influenced by supply chain efficiency considerations under GST regime which was dominated by indirect tax considerations in the pre-GST regime (PWC, 2016). Cost of transportation will be an important consideration in such decision making.

5. Conclusion

- From the macroeconomic point of view, higher GDP growth rate and higher Foreign Direct Investments are expected as a result of implementation of GST in India.
- One urgent need for economic development in any country is to transform the informal sector into formal sector. Introduction of GST may be considered as a positive step towards the above direction.
- Overall logistics cost is expected to decline whereas the gains will not be uniform for all companies.
- One important point to state is that the petroleum products will be gradually brought under GST. Such products are extensively used as inputs by many production systems. As a result some companies will not be able to offset their input duties for using such products.
- Some tax experts are also worried about certain clauses of proposed GST Legislation which may not give an opportunity to avail of input tax credit, in case of input services for which payments are made after three months of the date of invoice of the supplier. This may result in further cascading of taxes also (Sanghvi, 2017).
- On the one hand, GST will reduce overall tax incidence for products and is expected to increase demand thus leading to higher production and higher income generation. On the other hand, for Services specially, it may increase the tax liability in Indian context. Therefore, close

monitoring and sector specific remedies will be an urgent need for successful implementation of Indian Goods and Services Tax, as is also evident from international experiences.

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