



# **Outsourcing & Vendor Development Guidelines for DPSUs and OFB**

## **1. Background**

Defence & Aerospace sector is expanding globally and India is emerging as one of the largest defence markets. To boost the growth of Indian defence & aerospace industry, Government has simplified Licensing policy for manufacturing of defence products and raised FDI limit to 49%. In order to achieve the goals of self-reliance and efficiency, DPSUs/OFB and Indian Private Industry need to work in tandem. Outsourcing needs to be adopted as a Business Strategy to develop state-of-the-art technologies with long term vision to attain self-reliance by strengthening partnership with Indian Private Industry. This will propel, Indian Defence & Aerospace Industry to become internationally competitive in the long run.

To create a strong and vibrant manufacturing base in defence and aerospace in the country, a capable and cost effective supply chain needs to be built. In order to do so, there is a need for DPSUs/OFB to identify their core and strategic operations and outsource the non-core activities to Indian Private Industry and also core activities wherever feasible.

The focussed activities like vendor development, building long term partnership and strategic alliance in the mutual interest of DPSUs/OFB and Indian Private Industry need to be the guiding philosophy for building up a strong manufacturing base and supply chain for Indian Defence & Aerospace Industry.

## **2. Objective of Outsourcing**

The OEMs of the Defence & Aerospace industry worldwide play the role of system integrators by outsourcing a substantial part of the manufacturing process to vendors. DPSUs/OFB also need to shift their strategy in a similar way from vertical integration business model to system integration business Model. By adopting such a strategic shift, DPSUs/OFB can serve their ultimate customers in a better way. The outsourcing effort by DPSUs/OFB will add to their capacity enhancement, attain cost effectiveness and improve competitiveness in global market. The other significant objective of this outsourcing is to build a manufacturing eco-system in the country to attain self-reliance. On the other hand, participation of Indian Private Industry will be an enabler in building technological and manufacturing capability inside the country.



### 3. Definition & measurement of Outsourcing

Outsourcing is defined as the act of sourcing goods and services that go into the production of various products by DPSUs/OFB from Indian Vendors. The outsourcing contribution is measured in terms of financial value.

The formula to measure the Outsourcing content of a DPSUs/OFB can be derived as :

$$\text{VoO} = \text{VoP} - \text{DI} - \text{RM} - \text{IVA}$$

$$\% \text{ of VoO} = \text{VoO} / \text{VoP} \times 100$$

Where,

VoO : Value of Outsourcing

VoP : Value of Production

DI : Value of Direct Import

RM : Value of Raw Materials purchased from domestic market

IVA : In-house Value Addition (In terms of money value) for conversion of Raw Materials & components to saleable Product. Value Addition will not only cover manufacturing but also the services which adds into value of production.

### 4. Scope and feasibility of outsourcing

In order to attain higher level of outsourcing by each DPSU/OFB, the most significant step is to identify categories of Goods and Services in their yearly manufacturing program which can be considered for outsourcing. Possible categories of items may be broadly classified as under:

- (i) The first category of items will be the items which are low in cost, generic in nature and less technology intensive e.g. Screw, Rivets, Bush, Bearings, Rubber items, Springs, Wire harnessing, PCBs, Electrical motors, Filters, Transformers etc. They must be considered for outsourcing to private vendors/SMEs. The Know-how & Know-why available with DPSUs/OFB for such items are to be shared with Indian Private Vendors. It may not be economically viable for DPSUs/OFB to manufacture these items, therefore, these items must be assigned to private industry. DPSUs/OFB shall not make future investment in manufacturing of such category of items, if capability and capacity is available with Indian Private Industry.



- (ii) The second category of items will be the items which are manufactured by DPSUs/OFB under Transfer of Technology from Licensors/OEMs. Such items may need special manufacturing processes. The items may be Sub-system or System or higher assembly. Many Sub-systems or Systems are strategic in nature and in consideration of this, they may not like to outsource the entire Sub-system or System. However, machining & other operations which are not strategic in nature may be outsourced to Indian vendors. The necessary technical assistance like manufacturing drawings, 3D model, process documentation, quality process etc. may be shared by them with potential vendors for initial learning and operational acquaintance.
- (iii) The third category of items will be the items which are not so technology intensive but imported by DPSUs/OFB. Such items shall be identified and assigned to Indian vendors for indigenous development. DPSUs/OFB must extend technical assistance to vendors to develop such import substitution items. If required, financial assistance shall also be extended to the potential vendors during developmental phase. Suitable schemes may be drawn up by the DPSUs/OFB with the approval of their respective Boards/competent authority. Indigenous development of such items will reduce the import content and in due course of time, Indian industry will attain process capability in manufacturing of such items.
- (iv) The fourth category of items will be those which are technology sensitive, strategic and complex in manufacturing. Invariably, Transfer of Technology is denied by OEMs/Licensors for such critical systems & subsystems. Many such systems & sub-systems (Mainly Electronics & software oriented) also become obsolete and licensor/foreign OEMs refuse to support repair & maintenance for entire product life cycle. Even if they agree to support, they demand exorbitant support price. Hence, it becomes absolutely essential to develop/co-develop and indigenise these items within the country to achieve self-reliance. If required, financial assistance shall also be extended to the potential vendors during developmental phase. In order to attain self-reliance, there is a need to develop/co-develop and manufacture these systems and sub-systems in the country jointly by DPSUs/OFB and Indian Private Industry.



## 5. Vendor Development Framework for Outsourcing :

The ultimate test of success of DPSU's/OFB's outsourcing will depend on how they are able to develop and retain capable, reliable and competitive vendors for supply of required items/services. Hence, there is a need for adopting integrated policy of outsourcing and vendor development by each DPSU/OFB.

Each DPSU/OFB has a laid down system and procedure for vendor selection, vendor registration and vendor rating. This takes care of buying goods and services of generic nature. The items which are of generic type are supplied by vendors either through limited tendering or through open tendering.

## 6. Multiple approaches required in vendor development for outsourcing:

The items which are specific to defence & aerospace, there is a requirement to frame a different vendor development policy which may be as follows:

The category of items at **4(i)** may not require different vendor development approach. These items may be manufactured by existing potential vendors with a degree of technical assistance and sharing of know-how and know-why by DPSU/OFB to vendors.

The category of items at **4(ii)** is basically related with manufacturing operations. Outsourcing of such operations and services may require a different approach for vendor development. Some operations can be done with the available machines and process capability of vendors and may not require any special assistance from DPSU/OFB, However, if special operations and processes are required or higher assembly job to be out-sourced, degree of assistance from a DPSU/OFB may require technical, financial and consultative support. On many occasions, assistance may be required in the form of establishing in-house facilities by DPSU/OFB and making the facility available to vendors, providing test & inspection facilities, sharing of engineering details and process knowledge with vendors etc. There may be a possibility that a DPSU/OFB have manufacturing infra-structure but it may not be cost efficient to use the in-house or requisite skilled manpower is not available with them where as a vendor may have skilled manpower. This combination may be exploited by a DPSU/OFB by providing their facility to vendor under suitable arrangements. Such arrangements may be quite cost competitive and at the same



time it may augment the available capacity utilization of DPSU's/OFB work centres. The other possibility may be that vendor has most of the machining facilities available at their premises but possibly inspection and test facility is not available with them. DPSU/OFB may consider setting up the test/inspection facility at vendor's premises. Such outsourcing and vendors development doctrine is pursued by ISRO, DRDO and many other PSUs and it has worked successfully both for buying organization as well for vendors. Such partnership and association among DPSU/OFB and their vendors which is called strategic alliance or collaborative strategy, help both the partners in reduction of capital cost, logistics cost, manufacturing cycle time, optimal utilization of available manufacturing & test facilities at DPSU/OFB work place etc. Synergistic relationship may also be considered among DPSUs/OFB by making consortium to harness the benefits of huge infra-structure, manufacturing and test facilities at their work centres.

The category of items at **4(iii)** are imported by a DPSU/OFB on regular basis to meet their production demand. For such imported items, a different vendor development approach may be required. This requires capability assessment of vendors, their willingness to take up development of such items, assessment of technological assistance, capital investment for development of such items, making firm long-term orders/commitment by DPSU/OFB to the vendors in post development phase and establishing a long term partnership. In broad sense, such vendor's development framework is called "Hand Holding" and nurturing of vendors. It needs an explicit approach towards establishing strategic alliance with vendors.

The next category of items at **4(iv)** falls under "Technology sensitive, strategic and complex in manufacturing". This may require development/co-development and joint production of many systems & sub-systems especially in cases where Transfer of Technology is denied by Licensors/OEMs. This sort of development/co-development & co-production business model needs an entirely different approach towards Vendor's development. Here, strategic orientation shall be "To develop state-of-the-art technologies with long term vision" by strengthening partnership with private industry to evolve internationally competitive Indian defence & aerospace industry. To achieve such objectives, vendor development policy of DPSU/OFB may require establishing joint ventures with private vendors, acquisitions of firms foreign and domestic, forming of consortium among DPSUs/OFB and vendors etc.



The vendor development policy should result in products of premium quality. To achieve international quality benchmark, both the DPSUs/OFB and the vendor will have to work together to ensure that the vendor has a stringent quality assurance system. As principals, the DPSUs/OFB have to exercise utmost supervision over the quality assurance systems put in place by the vendor.

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