

8.1 IMPACT ASSESSMENT FOR VARIATION BETWEEN CONTRACTUAL PAYMENT TERMS AND RELEASE OF ACTUAL PAYMENTS BY SERVICES

In Defence over 80-85% turnover is from Monopsony customer and hence the understanding of assessment of contractual payment terms carries a major weight factor in price determination. We all know that ₹ 100 given today will not have the same value after 6 months it is because of the cost of borrowings or loss of multiple affect for the dues. Presently the Defence PSUs bills are not cleared within the time frame as I have personally seen a few years back and as per the discussion with the colleagues also there is always delay in release of payments by the defence customers for which it is not that the defence customer are responsible but the systems and the mechanism of payment is such that the query and the replies always go up and down and even sometime involving amendment in contract as a result of which there is a natural delay. About a few years back when the Defence PSUs were 100% owned and controlled by Govt. of India through Ministry of Defence then there was a natural system of realising advance payment against a particular programmes so that while the contracts are getting negotiated and finalised let the Defence PSU to concurrently to procure material and start processing and manufacturing. With disinvestment of the Defence PSU now there is a natural blockage of this principles as the Govt. of India is not owing them 100% even though they are government company as per the provisions of Companies Act, 1956/Companies Act, 2013. Hence, the paying authorities and the Govt. officials both are conscious in realising advance payments or in a crude language parking of funds.

Whoever enters in this field if they are private sector or a Joint sector their payment terms are to be crystal and clear linking to the achievement of milestones with certification of activity by the specified official of Services so that at a later date they should not have the difficulty in getting the payments on time. In these days of crucial overdraft rate, *vis-a-vis* capacity to bear the costs of financing; it is a must that these sectors should get the payment well in time as per their internal cash flow so that the financing cost should

be near zero. If we keep a payment term of sum 10% advance and 70% on delivery and balance 20% of the certification, every organisation will have to incur the financing costs as the defence supplies involves particularly in the case of various platforms of aircraft, helicopters/heavy vehicles along gestation period. Since these private sectors or joint sectors will have their own strategy like Defence PSUs in the negotiation, lot of weight factor is to be given for release of early payments for those programmes where the gestation period is very high. Generally, in the PSU what I have observed that, we are more costs conscious for the material costs part and hence our quotation is always bit higher side in comparison to private sector because in the DPSU we do not consider the gain which we get on receiving advance payment. The time has come when the DPSU will have to work on costing system in a different manner perhaps like Baniya Community in the form of PART A. The costing system which we generally consider involves costs of material, cost of labour, cost of outsourcing, costs of Non-Recurring Expenditure (NRE), a portion of costs of fixed over rate, variable over rate. What we have to follow perhaps from the market system that what price we are likely to get from the customer based on international marketing perception and then to work in reverse direction considering various elements of costs which be fixed as a target and relief be provided for whatever extra cash we carry for the programme at different points of time. To be very frank even the CAG/Investigating Agencies also to see the costs dynamics and markets dynamics and adverse comments be avoided if the official of DPSU have worked with a positive set of mind and integrity. Financial decision/business decision at a later stage on a review will always be questionable because future is uncertain at present level. My personal perception is that given a free hand to the business manager of DPSU, the govt. or the Defence services will have not to look beyond DPSU considering its overall requirements. As per my perception if defence services feel uncomfortable with a particular defence PSU, it can always recommend to the government to have its representatives in the Board of Directors of concerned DPSU. Disinvestment of DPSU may not be healthy if we want to achieve "Atmanirbhar Bharat". Even whichever DPSU has been disinvested, let through buy back arrangements even the concerned DPSU needs to made a fully owned and controlled government company. The DPSU are only committing a mistake which I feel is that they are not recruiting nowadays IIT Engineers/Engineering from reputed institutions but follow a process of advertisement through open selection. Let me respect IIT Engineers some top 5% brains which India is generating is not being utilized by India and they go out of the country and make Defence Equipment/ Missile Programme outside country & as a result, it rather works against us may not be directly but indirectly. I strongly feel that at least in the recruitment of engineers, the DPSU's are to be given freedom both in the area of skill set of production and design to recruit eminent personality and pay the salaries compatible with private sectors

and the government should hold the hands of those peoples at a later stage if there is a technical flow or programme fails. I have seen in Aerospace manufacturing DPSU how new products were developed in 70s and 80s why we have failed in 2000's. Hence, the costs of engineering/reengineering for the programme also to get appropriate allocation and as a separate item of costs so that the country gets all future generation fighter equipments/armaments well in time.

**8.2 SUGGESTED CONTRACTUAL TERMS AND CONDITIONS
(AS DEVISED BY AUTHOR WHILE A MEMBER IN RELATED COMMITTEE)**

Clause 1	Scope of Supply-Technical Description/Requirement/Quality requirement, etc.
Clause 2	Price & Payment terms
Clause 3	Price variation formula
Clause 4	Packing conditions
Clause 5	Inspection and Technical document requirements
Clause 6	Acceptance of goods
Clause 7	Training & Technical Assistance
Clause 8	Warranty
Clause 9	Optional clause (if any) - Repeat Order/ Additional requirements
Clause 10	Product support
Clause 11	Taxes & Duties
Clause 12	Integrity Pact & Bribes
Clause 13	Liquidated Damages (LD)
Clause 14	Earnest Money Deposit (EMD)
Clause 15	Security Deposit (SD)
Clause 16	Performance Bank Guarantee (PBG)
Clause 17	Spares management
Clause 18	Obsolescence
Clause 19	Withholding tax
Clause 20	Product Liability
Clause 21	Risk Purchase
Clause 22	Termination clause
Clause 23	Insolvency
Clause 24	Appropriation
Clause 25	Applicable law/ Jurisdiction
Clause 26	Arbitration

Clause 27	Indemnity against Patent rights
Clause 28	Sub-contracting/Sub-let
Clause 29	Work & Payment during arbitration
Clause 30	Fall clause
Clause 31	Export license
Clause 32	Immunity to the Government of India
Clause 33	Classified/Confidentiality
Clause 34	Agents/Agency Commission
Clause 35	Intellectual Property Rights
Clause 36	Force Majeure
Clause 37	Amendment & Waiver
Clause 38	Exit criteria
Clause 39	Cartel Formation

8.3 PRACTICAL LIFE EXAMPLES/CASE STUDIES/CONTRACT MANAGEMENT AND PRACTICE – AN APPRECIATION

1. What I have seen in the Defence Aerospace that Project Management which includes material management is one of the most prime concern for any programme. Let me tell you that whenever defence programmes come whether for manufacturing fighter aircraft or transportation aircraft or trainer aircraft or for its radar, the most important element are two things – one is flow of technical documents, knowhow and second is the skill set of the organisation. Technological flow of documents depends upon the contract management to a large extent as the Contract provides for the flow of technological documents for the programme from the licensor or developer. Generally, what is happening that most of the foreign countries will not provide you the most updated equipment but will provide you an established product. In that case the documents flow is not so much bottle-neck but if the programme is a developing programme and still the fighter aircraft is to get proven, the documentation part itself is not firmed up and as a result the various manufacturing NRE & Equipments may not be well established. Our MoD/Defence Customer has a very stringent quality control department which is called DGAQA which thoroughly checks up all the processes and documentation to avoid any missing gap. Hence, when the defense PSU goes for manufacturing under license then it has to face a large problem of smooth flow of documents which in turn affects ordering for technical kits/tools/equipments. As a result, most of the programme of License manufacturing, no doubt, gets into delay mode. The flaw is in the detailed contract signed by the Defence PSU with the allotted organization of foreign country so we should be aware of about the practical problems being faced by Defence PSU. This will be more critical for the private sector

having no experience in this field and they may not get so much co-operation from various foreign Indian Embassy as the Indian Defence PSU are getting. So, before any private sector jump into the fray of manufacturing of defense equipment be it of Army, Navy and Air force, they should first understand the critical bottlenecks in getting the technology and absorbing the technology. What is next thing important is the skill set of the organization, rightly the defense PSU by being in this field for years together have developed a high skill set in this field and some of the Defence PSU have a backup design set up to assist it whenever and wherever the technological gap is there. The Private Sector with highly paid executive will have to first search for the skill set of the technologists in this field, who has worked for defence aerospace or so and was involved in design Liasoning and will have to work with the Defence PSU in joint sector to learn the trade tricks. I have seen even the design programme about to go to its finality, get into some trouble at the fag end of the programme. Our MoD and services will expect a high level of technological and some unachievable targets as their base which hopefully not only Defence PSU have failed even our privates sector may also fail.

2. As the programme is not successful and the Defence PSU have drawn advances from the MoD/ Defence services, it harpens upon the PSU to refund back the amount which in no way is possible as generally the defence PSU sometime to augment the programme they go on placing orders for the full-fledged programme concurrently as they have established the successful vendors whose products have met the airworthiness criteria/ quality assurance criteria. So when the programme gets closed, it becomes very difficult for the PSU to recover the money from the Government without any mistake on its part. In any Design & Development programme all the 3 parties are involved *i.e.* the defense PSU, Concerned Defence Services and the MoD and still at fag end programme fails. While Defense PSU have learnt from their mistakes, what for the private sector there will be initial greenery but they will learn about all these things only after 5 to 10 years of the programme and not before that.

3. Getting money for the job done is also not easy from defence services paying authorities as they critically check their bill with reference to the contract/supply order and always will find some missing gaps in bits and pieces and if the payment is other than through Letter of Credit it becomes very difficult to get the bill cleared from those paying authorities. Paying Authorities have to see multiple things apart from their in house management *i.e.* their budget availability in specific head and then the supply order and the contract stipulating the terms of the payments along with the milestone completed and so on and so forth and naturally in the process there is a delay.

4. CAG in the post audit period will raise multiple issues both against the defence PSU and the defence services apart on paying authorities and all

these agencies will have to then give a coordinated reply to meet the observation of CAG. Since, the defence supplies are always complicated as the Defence PSU will have to purchase certain banned items from certain foreign countries for which they have to take coordination from multiple agencies before proceeding ahead. So, all these also leads to delay in the programme.

5. Design & Developments in defence programmes are highly capital intensive and success is not 100% so investment in design and development is very risky. However, Defense PSU's are generally investing 20% of their profit after tax for design and development; their design department is also involved in meeting the risk of obsolescence management and obsolescence management is quite critical in aerospace field. Every product has a life including the airframe has a life so when our country is not so rich we have to upgrade the same aircraft to the current level by way of upgradation of avionics, communications, radar and other mechanical & hydro mechanical systems to the current standards so that it can substitute the new generation fighter aircraft or transport aircraft. I have seen that this obsolescence management becomes nerve system even for existing programmes forget for the upgrades. All these critical elements are to be appropriately covered in the contracts with the licensor or the design provider of the platform. Generally, in the olden days we used to cover this requirement by way of an appropriate clause in the contract that one time buy option will be provided before closure of the product line or a substituted item with a substituted source with proper documentations will be provided by the licensor or design provider. All these are checked by DGAQA before its incorporation in the platform.

6. While, we all are aware whether it is under national arena or under international arena that the term of the contract itself becomes the law as the Contract Act, 1872 itself is based on the proposition that if the contract is built on fundamental principal of contract, it is enforceable in India and even in other jurisdictions so drafting the contract and incorporating appropriately all the conditions are a must for making any programme successful.

7. In Defense Programme what I have seen that the working capital requirement is very high, the reason being that MOD is the monopsony customer and getting payment from them is not an easy, smooth and so realization is always delayed and backlog of payments will continue with MoD paying authorities whereas the A class items that the organizations will have to purchase they have to place orders quite in advance so that production cycle is not disturbed. Production Cycle for manufacturing fighter aircraft from raw material phase is approx. 5 years. These A class items other than from Russian vendors are mostly through letter of credit. Letter of credit or sight draft under both the systems, the payments are to be released to the banks, once the documents are dispatched as per the terms of the letter of credit or sight draft. So, payments are to be made to these creditors well in advance,

realization is always delayed; hence, working capital cycle management is not smooth. Hence, the private sector will also face the same difficulty as it has become the established pattern. DGAQA checks up the production process intermittently so that quality product is available to the services but the process delays due to these checking is also involved. If Indian private sectors want to do the job of only assembly of aircraft and then test flying and delivery then ok ; they can do that but in a fighter aircraft manufacturing in a vertically integrated plant *i.e.* manufacturing from components, spares, line replaceable units and then structural assembly, final assembly, etc. are involved for a full aircraft manufacturing Standard Man Hours (SMH) will be approximately more than 10 lakhs SMH and for assembly of the Aircraft and test flying, the SMH content will be hardly approx. 30,000 SMH. Make in India programme or Aatmanirbhar Programme hopefully will not allow only final assembly and test flying, if the manufacturer has to do the job of repair and overhaul of the aircraft for learning technology and becoming self-reliant; the country must have the capacity to build aircraft from manufacturing of components to all the stages of production of spares, line replaceable units, sub-assembly etc. Hence, all these requires a proper contract with the licensor or with the concerned foreign agency.

8. In the contract, I have found that in spite of number of years of experience, certain clauses are not drafted properly from the practical life situation rather it is more based on legal terminology which leads to multiple types of problems at a later stage. Some such examples which I have realized personally are as follows:

- a. Payment terms – We are not linking payment terms with the cash outflow adding delay in clearance & payment release from services.

We are also not considering impact of advance payment.

Getting payment early will need to consider saving in working capital burden of financing cost.

The respective organizations can develop own mathematical model for pricing with payment term as the same may vary from organization to organization.

- b. Sometimes the Defence PSUs are not giving proper weightage to the remarks/ conditions provided in their commercial offers by the foreign vendors against the quotation/ tender asked by DPSU and subsequently when orders are finalized with that vendor then they are forcing the defense PSU to change certain NRE payment based on milestone payment and delayed payment charges which was not part of evaluation at the time of CFA approval. Although, such issues are mostly happening in proprietary vendors *i.e.* the Vendors whose items are approved on the aircraft platform and such demand by the foreign vendor sometimes acts as a precondition to accept the pur-

chase orders. DPSU naturally has to meet the target of supply to the MoD and at the stipulated time they have no option but to accept it.

- c. Amendment of Contract to avoid delay in completion of the defence projects. Such situations are also emerging when the development programme is delayed and non-recurring costs (DRE) is claimed by the vendor not as per the standard terms but there is a delay in the programme of development and once that particular milestone has been achieved, they are asking for change in payment terms. It is also observed that sometimes even accepted commercial terms and conditions with reference to incoterms, packing data, conditions of items, etc., the foreign vendors are asking for changing the terms at a later stage which is in variance with the original contractual terms and conditions. Similarly, the proprietary vendors or even original equipment manufacturer (OEM) are asking for changes in defect investigation, technical assistance, liquidated damages, spares and products support, fall clauses, escalation formula, delivery schedule, option clause, etc., whenever there is a delay in co-production and co-development and DPSU is not in a position to disrupt the programme by cancelling the order. Let me tell you very frankly from the practical angle that once a particular engine is fitted in a fighter aircraft, it is not possible to change the engine at a later stage of some other manufacturer because of so many technical requirements like Weight factor, thrust of the engine, oil flow, etc., so many issues are involved, so once you fit a particular engine you have to live with it for the aircraft life. This problem will be equally faced by the even top-notch private sector as it is not a car manufacturing or a truck manufacturing but it is a flying machine which has multiple technical aspects and all those have to be taken care of during technical stage. Hence, in order to bring in win-win situations whether it is private sector or public sector one has to be very careful in selection of vendor particularly initially on the basis of single acceptable offer keeping in mind the past experience of dealing with that vendor by the DPSU or the Govt. and this will avoid subsequent pressure of the vendor, what it is suggested that scrutiny of background and performance of the vendor thoroughly before final selection is a pre-condition for even the private sector big organization. This also necessitates to build vendor directory both for ongoing programme and for developing programme with technical options for replacement at a later stage due to unavoidable situation and accordingly it is suggested to invite competitive tendering and selection of reliable vendors and that vendor may not be L1 with H1 criteria but should have past precedence of being a reliable vendor; the designers have to face multiple problems during large developments programme but seeing the past experience

it is suggested that as far as practicable specification for the product should be generic and not tailor made specification to get a particular manufacturer selected.

- d. Design and Development programme requires sometimes consultancy for a very specialist test or for developing certain features like stall and spin test for developing a trainer aircraft. Providing consultancy of such specific test, hardly a few organizations in world is available and such organisation terms and conditions will be stringent during the course of the progress of the consultancy assignment they ask for amendment to contract to accommodate their demand. Sometimes they will ask for revisit of scope of work, updating the description of one of the milestone so that their payment is not hold up because of non-achievement of their milestone, extension of time schedule, redefining of payment milestone. All these suggest for in case of such programme to go into the background of the organization, past dealings, drafting of right RFQ/Contract to avoid change in parameters after finalization of contract. Such activity may also requires taking defense customer into confidence in consonance with the anticipated physical progress of the projects and avoid contract which is expenditure driven and release of payment milestone is not resulting into parking of funds with the concerned organization.
- e. I have also seen in a particular programme of national interest how a particular joint venture of the DPSU behaved with the DPSU. Payment terms as per the contract in development phase was 10% of the order value to be paid on finalization of system requirement. The same would be paid on receipt of technical specification and interface control document signed by the DPSU, who has assigned the job to the joint venture and the joint venture did not agree for performance bank guarantee during development phase and agreed to do the same only on series production phase. Similarly, they wanted to change the intellectual property right solely available with the DPSU which is paying the money for the development programme to IPR residing with both Joint Venture company & DPSU. ToT clause was accepted by the JV before the placement of the order and after placement of the order, the JV company wanted to change that ToT with DPSU. Now DPSU is in trouble because if they cancel the order of JV they will not be in a position to get the programme completed in time as that equipment is mandatory equipment for the particular programme so they have to accommodate their own JV by accepting those conditions. It is suggested that when you are dealing with JV, where other partners are also involved, don't trust the JV fully but see the competence of the organizations whether it is your own JV or a market organization and then decide.