Response to Consultation Paper on Promoting Local Manufacturing in Television Broadcasting Sector .

Submitted by
Rajiv Khattar
rajivkhattar@gmail.com
Jan 19, 2022

Q1. What is your assessment in respect of local manufacturing in the television broadcast sector of India? Is there requirement for a focused action in promoting local manufacturing in the television broadcast sector? Please elaborate.

Response : The Broadcast sector equipment's as mentioned in the consultation are primarily imported and dependency is on Imports has continued over the period.

For the sake of simplicity we can classify the equipment in three broad category

a) Headend equipments.
b) Network Equipment/ Transmission equipment (except Fibre and Coaxial Cables).
c) Consumer premises equipment.

Though there is a projection of the growth of the TV Households, Broadcast channels, and the growing networks and requirement of equipment for maintenance and replacement, still the manufacturing of the devices has not been taking place in the country.

The development of the products especially when technological changes are taking place at a very fast pace , needs considerable investments and time. For example HEVC technology came in around five years back and it is still being experimented with the deployments are now taking place, so the investments which went into the developing the technology need a long gestation period and it has to be done on an international level where there is a big market. A technology company does not sees India only or any particular one market , it sees the world as a market. Thus its development costs are spread over a wider market.

To promote the Indian manufacturing , it has to be with two underlying principle one that product should be marketable in other markets outside India and that is possible the manufactures are price competitive and quality oriented.

Till we are able to address these two points , we may see that world manufacturers will have developmental facilities in India , the production will be happening in other nations and imports will continue to happen.

In my opinion there is a need to put focused attention in manufacturing of the Television and Broadcasting sector equipment's to enable it compete with the International players. The need to enable the Indian manufacturers invest in the Research & Developmental activities and commercializing it.

Conditional Access System (CAS) and Subscriber Management System (SMS)

The CAS and SMS are an important part of the Broadcast and Cable Industry. CAS and SMS are one time procurement decisions every operator needs to make however the importance of lifelong support for the both CAS and SMS cannot be undermined.

There were no CAS company as the concept of the conditional access system did not existed in the Cable Networks till the digitalization of the cable networks happened. Before that DTH operators used the CAS and they all choose the foreign solution provider as there was no local solution provider with a proven track record and capable of handling the number of subscribers.

Similarly SMS companies were limited and no SMS provider had the experience of handling the number of subs which DTH companies projected, thus they either looked for an international SMS provider or took the call to develop their own solution . After digitalization of cable there have been few SMS companies which have come up and thus can provide the solution to the Distribution platforms.

Q2. Do you think there is an adequate opportunity, market, and/or demand for the manufacturing of television broadcasting (headend, back haul transmission, CPE and others) equipment in India? Please provide your comments with supporting inputs and data. What are specific requirements of special interfaces and features needed in transmission equipment used in Television broadcasting sector? Elaborate with respect to specific equipment like headend interface equipment and CPE/STB.

Response : Considering the three broad categories, of Headend or Teleports, Network/Transmission and Consumer premises equipment's (herein after mentioned as CPE)

The maximum growth is going to be in CPE's and then in Network Equipment's.

The Headend /Teleport equipment's growth is going to taper down as consolidations will happen, the newer setups will be lesser , the majority of the growth in this will be from the newer technologies like adopting better compression or modulation techniques **.**

The network is always growing and continuously need maintenance, thus as the proliferation of the cable increases with increase in the TV penetration more and more transmission equipment's will be required.

CPE will be the most growing market, the growth will come from

a) growing penetration of the TV households
b) replacement market
c) Adding newer features in the devices, like from plain vanilla STB to hybrid STBs.

Since Indian networks are based on DVB standards which are used in the majority of the networks across the world and thus provide the necessary interfaces with the other devices in the chain , it is thus important that we continue to follow the DVB standard for our markets. Any properiatory standards

The growth in the DD Freedish STBs which has been phenomenal and the boxes have migrated from MPEG2 to MPEG4 and to MPEG4 HD , though the transmission has been predominantly MPEG2 , the chip availability of the plain MPEG2 chips is no more thus the boxes coming in the market are mostly

MPEG4 HD as pricing differential of MPEG4 SD and MPEG4 HD as shrunk. The assembly of the boxes from China has shifted to India .

Similarly few DTH operators and Cable MSO have initiated steps to get the boxes assembled in India.

It is important to note that still 65% of the Components/parts of the STB are still imported as the availability of the same is not there in the country.. The strength of the manufacturing and long term sustenance does not depends on creating capacities but catering to the growing markets in different regions with quality product at a realistic cost.

Q3(a). Do Indian manufacturers have adequate capabilities to meet the broadcasting (headend, transmission, CPE and others) equipment demand of the Indian cable television sector?

Response : The Indian manufacturers are primarily EMS which means they do not do the developmental work in the product, but are assembling the products. They do not hold the IPR of the product or the softwares fo the product they are assembling. . If we are talking of the assembling capacities, yes , those are sufficient. The question to be asked is do they produce the product with the same quality standards in manufacturing. This is most important.

In fact if the quality of the Indian manufactures can meet the international standards then India can be a big manufacturing hub for other growing markets markets like Africa, Latin America, GCC nations.

The EMS companies doing the jobs may reduce the import dependence in term of value by 35% , but the profits from such manufacturing will still be with the foreign companies who do the developmental work and hold the IPR for the product.

Q3(b). If yes, then what new measures, if any, are required for the local manufacturing sector to capture a greater market share?

Response :

To propel the local manufacturing , the important aspect is the manufacturing needs to be educated on the importance of the quality and continuous investments on the development of the solutions.
Using the best of the components and other materials which have a great impact on the performance and life of the product. Develop an ecosystem where the other components like PCB, cables, power supplies, cabinets , packing materials are available in the vicinity of the manufacturing cluster , so that inventory timelines are met. One of the biggest advantage which international manufacturers have the comfort the credit insurance, which needs to be made available to the local manufactures as they then can supply to the platforms giving the adequate credits which will make them competitive with the international sources.

Q3(c). If your answer to Q3(a) is negative, then please comment what measures can enable local Industry to consider manufacturing of equipment for broadcasting (headend, transmission, CPE and others) segment? Please provide supporting inputs with relevant details.

Response : As responded to the Q3, there is sufficient EMS capacity available in the country.

Q4. What are the reasons for the limited market share of local STBs? Do the local manufacturers face any entry/exit barriers such as, but not limited to cost competitiveness, and/or technology-related issues? Please elaborate with supporting inputs.

Response : The share of the local STB has been limited for the reasons

1) The Indian manufacturers look at only local market thus their buying capacity is limited where as the international manufacturer cater to a bigger market and thus can negotiate better prices for their products and thus can offer the benefit of volume of scale to their Indian customers
2) The Indian manufacturers take the design from third parties and do not hold the IPR in the process, this puts them in a disadvantageous position as in the time of need the software support is not guaranteed, which is must in the STB business.
3) Consistency of the quality is very important , as the STB is the consumer facing device and thus speaks of the brand of the DPO and also a source of revenue, if the STB breaks down , then not only brand of the DPO gets a hit but also there are costs involved in attending service calls, call center calls and loss of revenue for the period the device was faulty. This is the primary reason DPO prefer to buy from a reliable international source rather then risking it from a local source.
4) The STB manufacturing involves semiconductors which has a long lead time and international manufacturers keep them on long orders based on forecasts and estimations from their clients, as they are catering to different markets thus can afford to place long term orders for the semiconductors and passive devices, which local manufactures are unable to and thus commit to a firm delivery schedules.

The Indian manufacturers have entry barriers like ability to invest in the procurement of the components in anticipation of the orders, invest in developing the products and owning the IPR and then support of the product in the after sales cycle.

We all are aware that there is hardly one or two STB manufacturers who own the IPR , and may be capable of supporting the DPO for after sales service software supports.

Q5. What measures do you suggest for improving the competitiveness of local manufacturers? Please elaborate your comments with supporting inputs and data.

Response : The local manufacturing in the field of the broadcast and distribution industry will grow with

1 Industry should get higher incentives on development of its owns product where in the IPR is held by the manufacturers.
2 The industry should be able to get working capital and may be non financial limits in terms of letter of credits etc for long term ordering of the components.
3 The industry should be given a facility of credit guarantee by banks so that they can offer appropriate credit limits to buyers to meet the international manufacturers.
4 A manufacturing hubs should be encouraged where in the ancillary components like remote controls, cables, cabinets, power supplies are manufactured which will reduce the inventory carrying of the manufacturers.
5 Regular training and awareness on the best manufacturing and quality processes so that they can meet the quality requirements of the buyers.

Q6. What other measures can be taken to encourage the adoption/usage of domestically produced STBs and other Consumer Premises Equipment among the distribution platform operators?

Response: As mentioned the credit limit and quality are the two biggest factors which will improve the adoption of the domestically produced STB's and other Consumer Premises Equipment. The next factor will be the ability of the manufacturer to support the product in terms of software requirements from time to time as per business needs and the regulatory needs.

The TRAI recommendations on the Interoperability if implemented by the MIB will help reduce the imports of the STB's and its components. The implementation of the recommendations for the TV which are manufactured in India , will also further reduce the import load and will give boost to make in India concept.

Q7. MeitY supported development of local CAS, which has been available for more than two years. What further measures, if any, should be undertaken to enable increase the market share of local STBs, that are designed in India, running on Indian CAS and made in India? Please elaborate with reasoning.

Response : CAS is a product which once deployed in a network is difficult to change as with it are associated the STB's deployed, interfaces in the SMS and broadcast systems and CRM software's, thus changing CAS is not a simple process like switching from one product to another.

CAS selection is also dependent on the no of chips it has been integrated on. A CAS which has been integrated with multiple chips (SOC) will have a better probability of selection as then it will be able offer a choice of box manufacturer and the chip producer to choose from.

CAS reputation in terms of handling the software support to meet the continuously changing business and regulatory need play an important role .

Indian CAS came in at a stage where a significant number of the networks had deployed the CAS in their networks. Thus to change the CAS for them was not an easy task. The new networks are the potential customers or the customers who are looking at deploying a second CAS in their networks. The iCAS has to work with different chip providers to provide more choices of the chips. It has to compete on the service and developmental work with the more established service providers. Again they also need to look at markets outside India to grow and establish themselves.

Q8(a). As per the estimates, yearly broadcasting imports in India amount to more than USD 20 billion. Do you think this market size reflects high potential for local manufacturers for broadcast equipment?

Response : A significant requirement of this imports is of the CPE and Networking/Transmission Equipment . Both of these provides a big potential for the local manufacturers.

Many of these products are researched and developmental work is done in India for the international manufacturers. However the Indian manufacturers need to look at these and will have to invest in the developmental activities of the product.

Q8(b) If yes, why the television broadcast sector is still dependent on imports for deployment in networks? Please elaborate.

Response : As elaborated earlier in our responses, the investment by the Indian Manufacturers in the development of the product and holding the IPR of the product has been minimal Thus the DPO look outward for the products which are established and have been tried and tested. The DPO or the teleports look at the reliability, as the critical factor for any product, as downtime is costly in the business plus the benefits of the latest technological benefits is critical for the user. These have been the main reasons for the industry to be import dependent.

Q9(a). Looking beyond local markets, can Indian industry gear itself to export television broadcast equipment for export markets?

Response : The way forward for the industry is look at the markets beyond India , with Chinese production costs are increasing , Indian manufacturer have this opportunity to now look at manufacturing locally and exporting to the growing markets of South East Asia, Africa, Latin America

Q9(b). If yes, what specific measures may be required to enable local

manufacturers to compete in global market for television broadcast equipment? Please elaborate with relevant figures and inputs.

Response : The local manufacturing need hand holding in terms of the design development, test facilities , labs to test the products and most import the long term credit facilities for the procurement of the components and also export insurance so that they can offer attractive credit terms to the buyers.

Q10. Is there potential for promoting local manufacturing of all types of broadcasting equipment more specific to television broadcasting equipment, e.g. head-end, transmission, CPE etc. or at this stage the industry should focus on specific segment like Customer Premises Equipment / Set-Top Box? Please specify the segment (if any) and support your answer with relevant market size in terms of value and volume.

Response : As discussed earlier in the response and in consultation paper, the demand in the Headend equipment or Teleport equipments is tapering down.

The demand for the network/transmission equipment's and CPE will continue to be there, as it has been calculated that there is still an annual demand of the 26 million STB annually , which itself is a big opportunity , similarly OLT/ONU are going to be in continuous demands. The demand will be from growth in market, replacement and thus these two areas are going to be continuously growing and should be focused on and these can offer opportunities in other markets in Africa, Latin America and SAARC region.

Q11(a). Do the existing policy measures and fiscal initiatives adequately address the needs of the Indian Television Broadcast manufacturing sector?
Q11(b). If yes, please provide supporting note(s) to your answer.

Response : The current incentives are for the telecom gear manufacturing and thus networking equipment may still be included in the same, however the television broadcast equipment are not classified under the telecom equipment's, thus it is essential that television broadcast equipment, CPE like STB etc may be also be given the parity with the telecom equipment's The credit insurance scheme may be brought in so that it can compete with the international manufactures to provide the same credit facilities to their customers

Q11(c). If the answer to Q11(a) is negative, what policy measures are required to boost local electronics manufacturing in the television broadcasting equipment sector? Please provide details in terms of short-term and long-term objectives.

Response : The local manufacturers should be given financial support for the long term investments on the development of the product and enable them order components much in advance, a sort of working capital at a reasonable terms. Also they need to be given the export credit guarantee scheme where in they are able to extend longer credit to their buyers.

Q12. Should the government extend the PLI scheme to the television broadcasting sector? Which equipment deployed in the television broadcast network should be covered under the PLI scheme? Please elaborate with supporting note(s).

Response : Extension of the PLI scheme to the STB's and the Networking equipment will help the sector to try increase the local manufacturing. However the PLI should not go to the EMS companies which is going to happen if it is turnover based, it should be such that it goes to the manufacturers who develop the product and then get it made in India. A simple PLI to the EMS companies will encourage only assembly in India , which is not the long term solution. Another incidence being seen is that certain companies bring in their product as get it assembled here, the margins are kept out of India and thus not only it hurts the exchequer but also discourages any development work by Indian companies here.

Q13. There is a need to have a standard understanding of the scope of 'local manufacturing amongst all the stakeholders to bring uniformity in the consultation. What should be the scope and definition of local manufacturing in the lines of manufacturing visà-vis assemblage of the television broadcasting equipment and their core components?

Response : This is an important point to be addressed, the local manufacturing cannot be just termed as assembly of a product whole IPR is held by someone else, the company claiming to be the manufacturer is just doing the assembly work or EMS services. This way the PLI scheme benefits will accrue to the EMS company and not the company which has been doing the developmental work. In case the company developing the product, owning the IPR and doing billing on its own though may be using an EMS company should only qualify for the PLI. Today an EMS can qualify for the PMS even if they just assemble a mobile phone though they may not hold an IPR or may be doing any developmental work.

Giving PLI benefits to the developing company who has the IPR will encourage them to continue investing in more products and also give the software support to the customers of theirs for long time , which will build the trust and more manufacturing will come to India.

Q14. Will a stronger R&D ecosystem enable the growth of local broadcast manufacturing sector? If yes, please suggest steps to promote and incentivize R&D undertaken in India to build domestic capability in television broadcast equipment manufacturing.

Response : Stronger Research and Development will positively give boost to the local manufacturing and also looking at the markets beyond India, one of the way I have suggested in the response to the Q13 above. Certain part of the R&D costs are given tax benfits.

Q15. In view of the concerns raised about Free Trade Agreements (FTAs) affecting the cost competitiveness of the local products, what policy measures do you suggest to address this issue? Please elaborate with supporting note(s).

Response : The FTA cannot be wished away as they have far reaching impacts on Indian exports. However the process of claiming the FTA benefits be made more rigid , the appropriate value addition in the FTA nations be clearly shown and at the time of importation.
We understand customs has initiated the process, however it needs to be made more robust.

Q16(a). Do you think that there is a cost disparity due to additional expense on infrastructure vis-à-vis competing nations that adds to disadvantage for local manufacturers?

Response : There is not much of cost disparity visa vis other nations, With the infrastructure already available for EMS services.

The need is the ability to give confidence to the buyers that players are long term, have the capability to provide after sales support, continuous developmental work, and quality product. There may be a pricing difference of few percent in single digit which is offset by inventory carrying costs as in case of imports the inventory carrying costs are higher.