

Technology Transfer to Small Scale Industries

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Abstract : The paper discusses the role of small scale industries (SSI) in the growth of national economy. The small scale industries contributes substantially in the employment generation industrial production and exports. The difficulty faced in adopting new technologies by SSI entrepreneur has been explained. The author points out that in many cases the know how developed in the laboratories do not have cost analysis, details of equipment required for setting up the plant based on the basis of know how. The author suggests that the small scale industries can support R&D only when the technology is fully established before that the expenses incurred in the development of technology for SSI should be reimbursed by the ministry of small scale industries. However, the facilities for trials be extended by small scale industries. The collaboration between SSI and R&D institutes will go in long way in improving the economy of state/centers.

Keywords : *Technology transfer, Small scale industry, R&D Management.*

INTRODUCTION

Continuous improvement in the Technology of manufacturing is a must for the growth and survival of small Industries. It is more so in the post WTO implementation period - a global free market economy which is turbulent and full of uncertainties - However, the effort for technology transfer to SSI is weak both from the transferee and transferee side.

Technology transfer to SSI has a special importance - Although

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the name is "Small" the impact is "Large" The following statement reveals it.

Number	- 95%
Industrial Production	- 40 %
Employment	- 80 %
Export	- 30 %

Small Scale Industries range from an investment in Plant & Machinery of a few lakhs to Rs. 100 Lakh and turnover of Rs. a few lakhs in a year to Rs. 50.00 Crore and higher. The author is concerned about the technology transfer to really Small Scale Industries say Tiny Industries which constitute 95% of the SSI Industries in the country. These have an investment of upto Rs. 25.00 lakhs in plant and machineries and have a turnover of the order of the order of Rs. 100.00 Lakhs.

Difficulties of Small Scale Industries (SSI) in accepting new technology

- Many units are very conservative towards changes.
- Secretiveness
- Not willing to accept disturbance in existing production arrangement which is caused due to trial etc.
- Poor paying capacity
- Less confidence in indigenously developed technology.

Difficulties faced by research laboratories / research organization

- There is no individual interest in selling the technology
- Many technologists do not have proper cost analysis back up.
- Research workers do not have independence and are guided by difficult rules and regulations.
- General rules for technology transfer does not take care of special circumstances.

It needs to be appreciated that in most of the cases an SSI Unit is one man show. It is said that a SSI entrepreneur has to do God Workshiping to shoe polishing . Thus, he is a terribly busy and tensed person. Any modification in the day to day process requires great deal of motivation. Any attempt to sell a Technology to a SSI unit will have to address to these problems.

A SSI unit has small mass i.e. it has a low sustaining capacity . This in turn means that the "Trails runs " should be successful in very short duration otherwise the entrepreneur is likely to loose interest in the programme.

At no Initial Cost

A SSI unit in general will prefer to go for a "Trail" run without any initial cost. His involvement should initially be generally limited to use of his facility, interference in routine working and use of consumables, power etc. The above however does not apply to a process which is already accepted and popular in the market. In such a situation the SSI entrepreneur will himself approach the laboratory/transferer and the technology transfer will take place rather smoothly.

Change of attitude

R & D laboratories will have to rethink so far as the transfer of technology to SSI is concerned. It will like to behave as a teacher who makes sure that his student passes the examination although the student is not willing to do so. R & D Laboratories should make strategy with this objective in vision. Technology up-gradation of SSI is to be taken as an important national activity by all concerned. R & D Laboratories may also ask for a separate fund the Ministry of SSI to meet this objective.

Can not afford to be slack

Both SSI's and RD Laboratory can not afford to beslackk in future. In this scenario of gblization sand competition generated thereby technology up gradation and advancement is the life line. SSI have in fact have to think in term of technology for tomorrow instead of merely technology updating. R & D laboratory have to play much important role in this regard. In some of

the discussions with the Director of NML Jamshedpur I have felt his strong desire to motivate SSI to adopt new technologies. I hope others will also follow him

Simplification of the process of Technology Transfer in The Case of SSI

Realizing the limitation of SSI and its importance in national economy, Govt, should make special provision for SSI's. I propose that special rules regarding charges, royalty and other terms should be formulated and practised for SSI's Once this is done the process will be fast.

Linkage with Ministry of SSI (At the center) Director of Industries and SISI

Contact should be established with the Ministry of SSI Director of Industries & SISI to implement a particular process in large number of possible SSI in bulk. The money should be paid by the concerned Govt. Depts.

Interfacing by Ministry for SSI and Director of industries

The R. D. Organization are now a days supposed to earn by developing new technologies and processes and transfer the same to industries on payment . Whereas, large and medium industries are in a position to pay for the technologies and processes the small scale industries, are not in a position to pay for these technologies as desired by R & D organization. Under the circumstances it is proposed that the Central Ministry for Small Scale Industries and State Director of Industries should come in between the R & D Organization and SSI and liberally fund/reimburse the cost of technology transfer. This will work as a catalyst in the process of technology transfer to SSI and there will be immense gain to the nation in the long run. As far as the author knows, there is no scheme to motivate Small Scale Industries to go for Technology Transfer either in the form of bulk subsidy or in the form of a continuous subsidy viz. Sales tax deferment etc.