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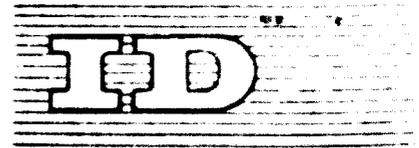
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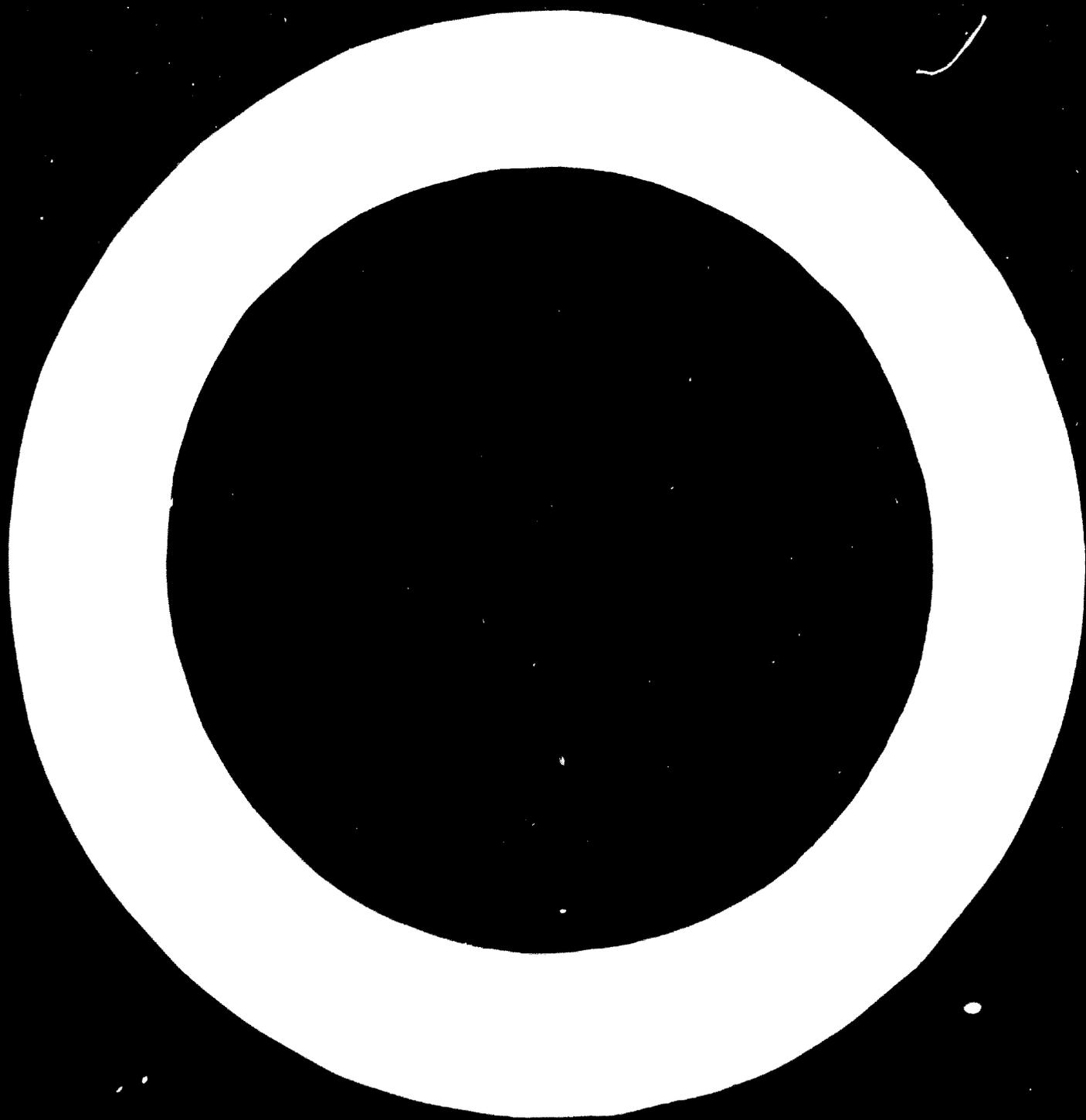
ROLE OF SUBCONTRACTING IN SMALL INDUSTRIES ✓

DEVELOPMENT IN INDIA

submitted by

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## Introduction

1. The development of industries in India on a planned and systematic basis commenced with the Industrial Policy Resolution of 1948. The Resolution was revised in 1956 to give a fillip to the development of industries on a decentralised basis. In both these Resolutions the role of small industries as a significant factor in economic development was emphasized. Actual development of small-scale industries was accelerated during the period 1951-56.

## History of Sub-contracting in India

2. During the Second World War, largely based on technical and entrepreneurial skill available in the country, a number of engineering workshops were established in India to meet civil and defence needs. Production of components, parts and sub-assemblies by smaller enterprises as subcontracting units to major assembling plants have really commenced during this period. The entrepreneurial skill at that time was provided by the retired government and railway engineers and in particular cases even by the skilled workers. Due to pressing economic necessity, small-scale industries were fostered as feeder units to larger undertakings immediately after the Second World War. Workers from several fields came forward and joined hands with other enterprising personnel and established small industrial units. Units thus started in a humble way gradually expanded and their production operations got diversified, though in small workshops located in congested areas. Stimulated by the natural increase in the demand, units had to expand out of proportion resulting in further congestion and haphazard growth. There was little planning which is absolutely essential for healthy functioning of the industrial units. But these units, even in the adverse circumstances, continued to produce the requirements of the larger enterprises as per agreed specifications.

3. Subcontracting in early days was mostly given to the units who had personal contacts with the larger units. Therefore, the subcontractors were either the ex-factory workers, relatives or otherwise known to the parent firms. The contracts were simple and based on the word of mouth agreements. The length of the sub-contract and its continuity depended upon the maintenance of good relationships with each other. Till the good relations continued, the ancillary units used to get their orders.

4. Prices were fixed through direct negotiations. The large industries being always quality conscious, provided technical assistance and inspection facilities wherever the situation warranted. In the beginning, large-scale industries were subcontracting simpler items. Later on, when the ancillary units achieved a level

of perfection in the production processes even some sophisticated items were farmed out. Some of the larger firms even resorted to invitation of tenders so that they get the best products at the cheapest prices. However, this led to the advent of middle jobbers who used to bid for the tenders and get the orders through their personal contacts.

#### Self-contained large industries

5. After Independence, in India a good number of large enterprises under receipt of required licences by the Government cropped up one after the other at a stage when the concept of small industry was much in its infancy. People of the country (both planners and executors) in the name of industry could then conceive only of industries which involved large investment, intricate mechanisation, specialisation in the work and employment of a great multitude of workers. Several reasons can be attributed to this, important among which is the lack of knowledge in the industrial field. All these large-scale industries in trades, such as, locomotives, automobiles, aircraft, iron and steel, cement, textile and the like were established investing enormous capital and also with some sort of foreign collaboration, either in the form of turn key job, capital of design or technical know-how, with the result that most of them got a self-contained footing. Most of these large-scale units were equipped to produce the components, sub-assemblies and the end products all by themselves. To a large extent a good number of them depended on imported materials in sizable quantities. The concept of subcontracting was completely missing then.

#### Focus on Subcontracting

6. With the development of small industries in India, the role that the subcontracting small-scale units could play in strengthening the large-scale units also became clearer. Concerted measures were initiated to develop small units to serve as subcontractors to large-scale manufacturers.

7. In 1956, the Tariff Commission had recommended for an organized industrial growth of ancillary industry in the country to meet the needs of the main vehicle manufacturers as also the replacement of vehicles on roads. Development of ancillary units makes it possible to take advantage of the economic concentration and specialisation and to maintain the efficiency in the industrial growth throughout the spectrum. It achieves dispersed industrial growth without having to forego the economies of scale.

8. The harmonious growth of large and small industries enable the latter also to improve their level of technology and performance as well. The large industries have a wealth of know-how and expertise which they acquire through their product development and manufacturing process. In the case of sophisticated items, this know-how is usually fortified by a technical collaboration agreement with firms in advanced countries. Small firms do not have the same fund of knowledge and experience and also the resources to develop new techniques. Large industries also are in a better position to help small industries by suggesting and selecting the proper type of raw material and machinery for them. This is especially true in the case of those small industries who supply bulk of their products to large industries.

9. It was therefore recognized that there was need to co-ordinate further development in both small and large-scale sectors simultaneously. It was essential to have a more comprehensive view of the requirements of the community, the contribution which the small-scale sector could make in relation to large-scale industries and the extent to which the process involved and the various stages of production could be decentralized. It was at this stage that the faith in subcontract work was infused. To gear up the technical background of small units with a view to enabling them to take up the manufacturing programme effectively, the Small Industries Development Organisation set up a network of field agencies on a nation-wide basis. The National Small Industries Corporation came forward to supply both imported and indigenous machines for the industry on hire-purchase basis.

#### Active Measures for Development of Subcontract

10. The Standing Committee of the Small Scale Industries Board constituted a Sub-committee under the chairmanship of the Development Commissioner, Small Scale Industries, in the year 1958. This was named as Ancillary Industries Committee which was formed with a view to examine various ways and means for the development of small-scale industries as ancillaries to large industries. This Sub-committee suggested a number of steps to provide a strong impetus to large-scale units for utilizing the services of the small units and farm out subcontract work.

11. In order to nurture the growth of the ancillaries, positive programmes for their development were entrusted to the Small Industries Development Organisation in 1950 on the recommendations of the Standing Committee of the Small Scale Industries Board which is an apex body charged with the responsibility of formulating various developmental programmes for the sustained development of small industries.

12. The verticalization of industrial growth in the large-scale sector and also to a marginal extent in the small-scale sector was no doubt improving the specialization in their respective fields, but it was unable to bring about a more co-ordinated approach towards the common objective of improving the socio-economic status of the country. It was realized that the small-scale sector of industry could rightly be considered as the back-bone for the economic prosperity of this country, as it has shown similar identity in other developed nations of the world.

#### Regional Sub-committee

13. In January 1963, the Ancillary Industries Committee at Development Commissioner's level convened a meeting when it was decided to form Regional Ancillary Industries Committees with the following terms of reference: -

- (i) Preparation of lists of parts, components and sub-assemblies required by those large-scale industries which are directly connected with the Defence Establishments;
- (ii) Preparation of lists of parts, components and sub-assemblies required by other large-scale industries; and
- (iii) Suggesting items of production to be demarcated for exclusive undertaking by small-scale sector so as to fit with large and small-scale industries.

14. Such Regional Committees were set up in Bombay, Calcutta, Delhi, Bangalore, Madras, Madhya Pradesh, Bihar and Gujarat.

#### State Ancillary Committees

15. The development of ancillary industries is a continuous process and as such it would be desirable that each State should constitute a State Ancillary Industries Committee. It was suggested that the State Ancillary Committees should be formed under the chairmanship of the Director of Industries with the Director, Small Industries Service Institute, functioning as Member-Secretary and this Committee should formulate ways and means for the promotion of small-scale ancillary industries.

#### Registration of Ancillary Units

16. The Ancillary Industries Committee held its 20th meeting in February 1968 and made the following recommendations: -

It was felt necessary that the small-scale ancillary units should be registered on the lines of Directorate General of Technical Development keeping in view the higher limit of capital investment towards machinery and equipment. There are thousands of small-scale units in the country who are supplying parts

and components to large-scale enterprises but no data and information about the items supplied, the installed capacity, the annual supplies made by them, etc. were available. The consensus of the members present in the meeting was that obligatory registration of every small-scale ancillary unit should be done by the Office of the Development Commissioner, Small Scale Industries Organisation. The procedure followed for ancillary registration will be on the lines of enlistment for participation under Government Stores Purchase Programme. The registered small-scale units should furnish the production particulars on a quarterly basis which will be maintained by the Development Commissioner, Small Scale Industries Organisation.

#### Selective Approach

17. The following 16 industries in respect of which the upper limit for capital investment towards machinery and equipment has been raised to Rs. 1 million have been selected for Ancillary Industries Development Programme: -

1. Industrial Machinery
2. Agricultural and earth moving machinery
3. Machine Tools
4. Industrial, Scientific and Mathematical Instruments (Mechanical)
5. Locomotives and rolling stocks, ships and aircrafts
6. Bicycles
7. Boilers and steam-generating plants
8. Steam engines, turbine and internal combustion engines
9. Automobiles
10. Commercial office and household equipment
11. Telecommunication equipment
12. Industrial instruments (Electrical)
13. Electrical machinery, equipment and appliances
14. Radio and Electronics equipment
15. Air-conditioners and Cold Storage equipment including Refrigerators
16. Mineral Oil and Petroleum Industries

#### Definition of Small Industries and Ancillary Industries

18. For the purpose of giving a special status, the Ancillary Industries have been considered as such industries whose capital investment towards machinery and equipment does not exceed Rs. 1 million while the same for ordinary small industries has been kept as Rs. 0.75 million. The National Small Industries Corporation initially laid down special preferential terms for supply of machinery

on hire purchase to ancillary units. The rate of interest was  $4\frac{1}{2}$  per cent as against 6 per cent in the normal case. The period of repayment for the public sector projects had also been increased from 7 years to 10 years.

#### Pattern of Subcontracting in India

19. Subcontracting in India is organized in different forms. Three conspicuous forms are: -

- (i) Industrial Estates consisting of units supplying parts and components to the main manufacturing units
- (ii) Industrial Estates consisting of units supplying items that do not go directly into the main manufactured item of the mother unit
- (iii) Units outside the industrial estates in different parts of the country

#### Specific Experience in Subcontracting

20. An example of the first category is a Machine Tools (Hindustan Machine Tools) Ancillary Industrial Estate. The units are housed within the campus of the mother unit and enjoy common facility services like raw material depot, technical assistance from the parent unit, measuring gauges, etc. Here the work is off-loaded from the Hindustan Machine Tools Limited. By mutual negotiations prices for the supplies are arrived at. These units are expected to take in outside orders only if they have spare capacity after meeting the obligations of the mother unit. The machines installed are those manufactured by the mother unit and supplied on hire purchase basis by the National Small Industries Corporation. As these units possess machines identical with that of the main factory and also as most of the entrepreneurs are technically qualified or experienced and in many cases having previously served in the main unit, the technological gap is less pronounced. The integration of the parts and components to the main assembled item is smooth, as if these units form branches or different departments of the main unit.

21. The recent wave of recession that gripped India revealed certain deficiencies in this arrangement. Owing to the lack of demand, the stock of machine tools piled up in the main factory. This resulted in slowing down the pace of production and the consequent decrease in the volume of orders placed in the ancillary units. The idle capacity in the ancillary units increased considerably and the production in small quantities proved uneconomical. Moreover, as these ancillary units were planned to produce certain specific components or parts of a machine, considerable imbalance in the equipment and machinery was observed, when the entrepreneurs contemplated diversifying their production to make any end product.

The lesson gained in the wake of such an economic situation was that it is not safe to solely depend upon a single mother unit for supply of components and parts and it is an additional safety factor for these units to embark upon the production of an end item also.

22. From the angle of the large-scale unit, however, this pattern of ancillary production proved as an insulation from the shock of recession for it, as the shock was passed on to the ancillary units.

23. An example of the second category is the Industrial Estate attached to a large-scale electronics unit (the Bharat Electronics Limited in Bangalore). Here there are a dozen units functioning very close to the main factory. But most of the units manufacture items unrelated to the main factory production. They are engaged in making auxiliary products like packing cases, canvas covers, etc. which the main factory is not interested to manufacture. As these units are balanced in their equipments to produce an end-product and as they did not solely depend upon the parent unit for all their production these "dependent subcontracting units" were also "built-in self-reliant units".

24. Majority of the large-scale units which are now obtaining their requirements from subcontractors fall in the third category. Geographical distribution of suppliers weighed little in selection of the sub-contractors. We see suppliers converging to the large units from all parts of the country. Price, delivery schedule and quality decided the subcontractors rather than the proximity to the parent unit. Certain large-scale units are doing studies of the subcontracting aspect and at least one noted large-scale unit manufacturing automobile items (Motor Industries Company) is known to prefer having small-scale suppliers in the neighbourhood in preference to those from far off places. In the initial stages, their supplies were drawn from manufacturers even as far as 2500 miles but through their constant endeavour of search, the suppliers have been located nearer. The large units ultimate goal is to find all their suppliers in the vicinity of the main unit. This Company's approach has been one with faith among the small-scale units; their attitude has been one of extending all possible assistance to the small units to get the items as required for the main production. The technical staff are making familiar with the unit's equipments and capacity and also visit them to give on-the-spot guidance to build quality into production. This last effort is a laudable objective which will pay well in the long run to get quality suppliers and forge a strong relationship between the two. Another notable feature in this concern is its insistence on its subcontractors not to depend upon their

sole order for its working. It was a condition that subcontractors of this company should have alternative outlet for their production. This approach ensured a certain amount of stability to the subcontracting unit.

25. Another large-scale unit manufacturing transformers, motors, etc. (M/s Kirloskar Limited) when faced with recession found it difficult to retain the subcontractors. Not only the volume of off-take dwindled paralysing the subcontractors, but also had to face an agitation from workers within. When the volume of activities within the main factory shrunk considerably and the workers were rendered idle, the union resisted taking supplies from outside resources. Thus, what seemed to be an economically sound system appeared to prove impractical in periods of economic crisis.

#### Subcontract Planning in Large Industries

26. Comprehensive subcontract planning is a recent tendency in scientifically planned large industries coming up of late. One international company licensed for manufacturing calculating machines (I.B.M.) has drawn up an elaborate plan for subcontracting. A preliminary survey was conducted by the unit in various parts of the country to locate small-scale units which are found suitable for supply of various items that are being imported presently by the company for their assembly. Depending upon the management and the equipments the units have, they have been graded as A, B or C corresponding to "Very Good", "Good", and "Fair". Lists of all the items together with their specifications and the quantum of requirement have been prepared. Drawings have also been made. These items are being displayed in important centres in India. Publicity to the display is given through widely circulated news papers and industrialists are invited to discuss with the "Task-Force" consisting of an engineer and a buyer who have been entrusted with the work of locating the subcontractors. Estimates for various components have already been prepared by the company and kept with them. The price quotations received from the small-scale units are being examined with reference to these estimates and wherever in the opinion of the company, the suppliers are suitable, they are invited for a discussion for finalizing the contract. The company is spending about 2 lakhs of rupees for this preliminary item of work alone to plan their subcontracting operation. This is a new type of experience that we have come across and if the subcontracting work is planned scientifically from the inception of the large-scale unit, difficulties may not arise in arranging suitable suppliers for various items and components.

### Impetus to Development

27. The difficult foreign exchange position of India prompted introduction of 'import substitution' measures which gave fillip to subcontracting. At least one public sector project manufacturing equipments (M/s. Indian Telephone Industries) has brought out a booklet containing 282 items for import substitution. This has offered great scope for generating a set of subcontractors for these items. As these are new items, there is little competition among the subcontractors. Developmental work is going among many small-scale units to make these import substitution items. Developing subcontractors for 'import substitution' items is an area of novel experience for the small-scale sector of India.

28. As subcontracting involves two parties, the prime contractor and the subcontractor, many problems arise at different stages of execution of the contract. India's experience of these problems at different stages are analyzed below from both the angles of the subcontractor (small-scale units) and the prime contractor (large-scale units).

#### Problems of Subcontract

##### (a) Communication

29. The large-scale units supply the drawings of the components they require. The language of drawing is not familiar to majority of the small industries. Therefore, models or samples have to be given. Manufacture of an item from the model will be less precise than from the drawings. The rejections arising will, therefore, be high.

30. India is trying to solve the problem by up-grading the skills of workers or by employing trained workers from the Industrial Training Institutes.

31. The job of a subcontractor will be effective if the subcontractor understands fully the functional value of his supply item in relation to the ultimate product. The full implication of subcontracting should be understood by him. This calls for a constant dialogue between the two or an instructional programme for the small unit which is conspicuous by its absence. Organized instructional programmes to subcontractors is yet to be introduced as an important step.

##### (b) Delivery Schedule

32. Delayed delivery has been a curse with the small industry. Absence of scientific system of production planning and scheduling has been the main reason for this weakness. As the goods are not certain to be received in time, the

large-scale unit fixes the delivery date earlier than necessary in order to reduce the risk of late delivery, too much follow-up and reminders are found necessary. As the success of the subcontract system depends upon "a religious adherence" to the delivery schedule as in the case of Japan, scientific management of production becomes imperative. The Small Scale Industries Development Organisation is spreading the scientific management techniques among the small units through its network of Small Industries Service Institutes and also renders assistance in individual cases to schedule production in such a way as to comply with the delivery schedule.

(c) Quantum of Orders

33. Instances have come to notice that the large-scale units requiring substantial quantum of a particular component/part, invite tenders for the supply; but after accepting the quotation, orders are placed only for a lesser value. This puts the small-scale units at a disadvantage. This situation can be rectified only by the large units developing a healthy attitude towards subcontracting and adhering to healthy conventions.

(d) Tools, Jigs and Fixtures

34. The practice of large units supplying the tools etc. to their subcontractors exists only in exceptional cases. Design and manufacture of these production apparatus pose a problem to the small units. Considerable time is lost in getting the required tools made and as the facilities of Government Tool Rooms are few, the scope for obtaining these at competitive cost becomes limited, forcing the subcontractor to pay high cost to obtain the required toolings from private sources. This difficulty is keenly felt with the increasing number of subcontractors. The State Governments have begun to meet this difficulty by proposing to set up tool-rooms in different parts in their jurisdiction.

(e) Pricing

35. The determination of prices poses a problem in subcontracting. Inviting tenders every time for every item, major or minor is a long drawn process. Therefore, mutually acceptable principles have to be evolved in this sphere. This is an area in which practices vary from unit to unit and from industry to industry. India has little to say by way of experience in this aspect.

36. A majority of the small-scale entrepreneurs in India lack the adequate knowledge of costing and estimating. It has been seen that some of the units at times have quoted ridiculously low prices for their products which hardly covered

raw material cost. The Small Industries Service Institutes are, however, endeavouring to give necessary assistance to the small-scale units in this direction by way of management counselling, inplant studies, etc.

(f) Quality

37. While the incoming quality inspection at the level of the large industry is scientific, the outgoing quality inspection at the level of the small unit is far from it. The measuring gauges and methods in both, also differ. Quality control in small-scale industries takes the form of rigid inspection measures, rather than building quality into the product from the stage of raw material onwards. An increasing measure of assistance from large-scale unit to reduce rejects and greater awareness of quality measures through education and practice alone can improve the quality in such a way that the component can straightaway pass to the assembly in the large-scale unit. The progress of India in this aspect is slow, but assuring.

(g) Payment

38. The large-scale units in most of the cases are not prompt pay masters. The capital of the small units gets locked up in an unproductive way in serving as subcontractors. Although financial institutions are coming forward to discount such bills, not only the full amount is not realized, but payment of interest also arises, thereby reducing the margin of profit of the small unit.

39. Despite the fact that subcontracting has made much progress, the same has not been upto our expectations. Two of the main reasons for the comparative inadequacy of success in this programme are:

- (i) the reluctance on the part of large-scale units in the private and public sectors to buy their requirements from small-scale units;
- (ii) the inadequacy of technical staff both in the Small Scale Industries Development Organisation and the State level offices to provide sustained assistance to manufacture and supply components; and inadequacy of some of the essential inputs like raw materials, cheap credit, etc.

Programme for the Future

40. During the coming five years we are proposing to take up several measures which will help in promoting ancillary industries. These are:

All the public sector undertakings that are likely to be established during the Fourth Five Year Plan period, will be required to explore the possibility

...the components as far as possible from the small-scale ancillary units. The import of components, etc. will be permitted only after getting clearance from the Small Industries Development Organisation as to the indigenous availability or otherwise. It is also proposed that the Government should insist upon the large units, whether private or public, to indicate the parts and components that they are going to purchase from the ancillaries at the time of the licensing. Besides, Ancillary Industrial Estates are proposed to be established in those public sector undertakings which are coming up and which have scope for ancillary units. In addition to units that are already established, the small industry units will be assured of scarce indigenous raw materials and imported raw materials so that the production of components are made as per the specifications of the parent units.

It will be seen that the evolution of the subcontracting system has been the result of a series of deliberate promotional measures of the Government, implemented through the Small Scale Industries Development Organisation. It is, therefore, proposed to strengthen this Organisation to provide technical counselling, managerial advice and other facilities so as to sustain and accelerate the growth of ancillary industries in the small-scale sector.





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