DATA BANK AND INFORMATION SYSTEM FOR SMALL SCALE INDUSTRIES

R. P. Mehta & Dr. W. B. Donde
Small Industries Development Organisation
New Delhi

1 Background

Since the introduction of the development programmes for small scale industries, the sector has made tremendous progress during the last two decades. The small scale industries have generated substantial capacity of a large variety of consumer and producer goods and its participation in the import substitution programme of the country is noteworthy. Of late, this sector has successfully entered into the arena of production of sophisticated items. In short, this sector is making a significant contribution to the National Economy.

With the expansion of industrial activities in the small scale sector during the last 20 years, all round awareness has developed about the need for comprehensive and up-to-date statistical data regarding this sector. Very little attention was devoted so far towards the establishment of a system of collection of basic data regarding this sector on regular and continuing basis. Further, with competition in production between the small scale and the large scale sectors for a large variety of products, the necessity for having up-to-date information regarding small scale sector vis-a-vis the large scale is being felt more acutely. Reliable and up-to-date data regarding production, employment, investment, exports are woefully lacking. The only organised effort for the collection of data from the small scale sector so far has been through Annual Survey of Industries. The data collected through this survey, though useful, have however, their own limitations and do not cover a substantial portion of the small scale sector comprising units which are not registered as factories.

In view of this need for establishing a system for collection and maintenance of the basic data regarding the development of small sector, the Small Industries Development Organisation decided to set up a "Data Bank Cell" for collection and maintenance of reliable and comprehensive statistical data relating to small scale industries. To provide a base to the Data Bank, a countrywide census of small scale industrial units was launched in 1973-74. The frame for this census was built up from the registration records of registered small scale units being maintained by the

DATA BANK AND INFORMATION SYSTEM FOR SMALL SCALE INDUSTRIES

Industries Departments of all the State Governments and Union Territories. The data collected through the census, would be updated by the Data Bank through the revised procedure of registration and the system of obtaining annual production returns from the registered small scale units. As both these measures have already been introduced, the mechanism of obtaining data regularly from the registered small scale units has been created.

2 Information Needs

The information needs essential for developmental activity in respect of industries in the small scale sector could be broadly classified into the following categories:

i) Developmental
ii) Technical
iii) Regulatory and
iv) Marketing.

The data on existing capacity, production, exports, employment, investment etc. comprise the first category. These are expected to meet the requirements of policy makers to a considerable extent but would satisfy only a part of the requirements of the individual entrepreneur, intending to set up a small scale industry.

Though information on such aspects as existing production, its dispersal etc. can provide an idea about the prospects of taking up a particular line of industry in a particular area, information on aspects like technical/economic feasibility, process of manufacture, availability of machinery and raw materials, type of testing facilities and their availability etc. and above all on the management aspect are also equally important. Such information could be grouped together under "Technical Information".

An individual entrepreneur has to follow a number of procedures either for setting up or running a unit, e.g. obtaining power load, licence from Municipal/local bodies; registration with the Sales Tax/Excise authorities, export documentation, enlistment in Government purchase programme etc. and all the information will go under the head "Regulatory Information".

The fourth category of information will be on the market and marketing intelligence for a product or group of products. In fact with the rapid advancement in technology and the increasing competition from the medium and large scale sector, the decision for selecting a suitable line of manufacture will largely depend on this background information. Information on total production, demand and supply position, price structure, locational advantages, distribution channels and system, export potentialities, sales promotion and advertisement, packaging, standardisation etc. are of vital importance both for the existing as well as the prospective entrepreneurs.

3 Organisation of Data Bank

31 Development Data:

The data collected through the National Census, referred to earlier, will form the base on which the superstructure of developmental data is to be built. The major
breakthrough has been achieved in this direction. The procedure of registration of the small scale units with the Industries Departments of the State Governments and Union Territories has been streamlined and brought to a uniform footing. Under this procedure the individual entrepreneur or party seeking registration with the State Industries Departments is required to fill in a prescribed form of application incorporating the base line data (data on location, employment, initial investment, type of organisation, type of entrepreneur, etc.) which are not likely to change too frequently. Uniform concepts and definitions in furnishing the information at the time of registration will ensure that inter-state comparisons are valid and reliable. This base line information from the application forms for Registration is envisaged to be supplemented with the data which would flow through annual returns. The annual return will incorporate data on actual production, capacity, employment, consumption of raw materials, exports, ancillary supplies and also the sales effected during the period under report. The data generated by these two sources will be adequate for erecting the superstructure of developmental data over the base of the census data.

The basic data of the Census have been stored on the magnetic tapes. The updating system for these data will also be a computerised one. The basic record on the tapes will be at the level of individual manufacturing units. The updating mechanism will thus involve:

a) Updating the data on variable items like production, employment, exports, consumption of raw materials, sales, etc.

b) Broadening of the base with the addition of information on units being continuously added to the registration records.

Each individual unit will carry a unique identification number, consisting of code for State & District where the unit is situated and a running serial number which will vary from District to District. This scheme was adopted for computerisation of data from the Census schedules and has been incorporated later on in the format of the registration number to be allotted to the post-Census units. The registration number to be allotted to the units registered after the cut off point of the Census, will essentially consist of State code/District code/running serial number (which will be in continuation of running serial number of the Census). Thus, in future, the registration number of the units itself will be the identification number for the computerised system. The State code and the District codes have been evolved in collaboration with the Directorate General for Technical Development (DGTD) who are also building up their own information system. These identical District/State codes will enable matching of Districtwise aggregates for small scale sector with those of medium and large scale sector.

The implications of allocating a unique identification number to a particular unit are very wide. In any computerised system where identity has to be kept at the level of individual constituent unit, the code to each of such unit has to be allotted for identification purposes on the magnetic tapes or other storage medium. Since registration number of the unit will be used in the records of other organisations like Chief Controller of Imports and Exports, commercial banks, which also deal with the small scale manufacturing units, it would be possible to match the data available with these organisations with the data maintained by the Data Bank of the Small Industries Development Organisation (SIDO) through the common parameter of the registration number.
DATA BANK AND INFORMATION SYSTEM FOR SMALL SCALE INDUSTRIES

Time is not far off when the above mentioned agencies may switch over to electronic data processing and in that situation it would not only be feasible to exchange the data tapes between each other but such exchange will also provide sufficient material for evaluating the reliability of the data furnished by the same set of individual manufacturing units to the different agencies of the Government/Financial institutions in pursuance of various acts and regulations, directives etc.

A system of regular flow of the data from the District Industries Officers and the individual manufacturing units to the Data Bank of the SIDO and feedback from the latter to the Small Industries Service Institutes and Directorates of Industries is in the process of being established.

The Data Bank at the headquarters of the SIDO will maintain information both at micro and macro levels through a suitable computerised system. The feedback to the SISIs will be the information at macro or micro level in respect of the States under their jurisdiction. The Small Industries Service Institutes (SISI) will maintain information relating to names and addresses of the units productwise, on suitably designed index cards. The index cards will have the provision for incorporating the details like capacity, production, employment investment and details of machinery and equipment. Besides enabling the SISIs to furnish the information needed by the entrepreneurs, the data thus maintained will also be useful to the technical officers for preparation and scrutiny of model schemes and project reports.

At the first phase of programme of work, the system of flow of data as detailed in the foregoing paragraphs will be put into operation and efforts will be made to perfect the same. In the absence of any statutory obligations for the small scale units, to furnish the data periodically to the State Industries Departments, the task of establishing regular flow of these annual returns is beset with numerous difficulties, and it would entail lot of financial and human resources to achieve a definite success. A number of recommendations for strengthening the State level organisations are under consideration of the Government in this regard and it is expected that some headway will be made in building up the information system, both at the State levels and the SIDO headquarters by implementing these recommendations. What is more important is that conscious and determined efforts are to be made for evolving a system of maintenance and dissemination of developmental data relating to small scale sector. It is also envisaged that an Index of Industrial Production in the small scale sector on annual basis, would be built up.

32 Technical Information

As already indicated, the individual entrepreneurs often need technical information, in addition to developmental information, right from the proposal stage to actual setting up of a unit and running it on efficient and profitable lines. The technical information may relate to :-

i) Feasibility studies
ii) Schemes and project reports on selected items
iii) Testing facilities
iv) Common facility services
v) Prices of various items of machinery and raw materials and the sources of availability
vi) New products and processes being developed for commercial exploitation
vii) Consultancy services and demonstration
viii) Training facilities, and
ix) Research and Development facilities.

Maintenance of this type of information is more relevant for the Small Industries Service Institutes (rather than the SIDO Headquarters) which are contact points for the SIDO with the small scale units. Some special studies like area surveys, techno-economic surveys, studies on identification of growth centres, intensive campaigns etc are undertaken not only by the Small Industries Development Organisation but by some other agencies also, directly or indirectly, connected with the development of small scale sector. It is intended to keep up to date information about such studies. This will not only be useful in avoiding duplication of efforts by different organisations while undertaking such studies but will also afford an opportunity of critical evaluation of the recommendations made in various studies conducted and completed over different periods of time. Though a number of surveys and campaigns are being conducted in different parts of the country and large number of industries are recommended in the reports for setting up in various areas, there has not been any follow up action to ascertain whether such recommendations were implemented and if so, with what results. If comprehensive information about the previous studies undertaken is made available before a fresh survey is contemplated, the question of evaluating earlier recommendations, during the proposed survey could be taken care of.

Collection and maintenance of this type of information is very expensive and requires special expertise. A documentation unit known as Small Enterprises Documentation Centre (SENDOC) is already functioning in the Small Industry Extension and Training Institute at Hyderabad. The SENDOC has developed a well organised system of collection and maintenance of technical information on most of the aspects listed above. The wealth of technical information available with the SENDOC could be used fruitfully by the Small Industries Service Institutes. A scheme for establishing an information grid between SENDOC and the SIDO with its constituents scattered all over the country, is being worked out. The Data Bank at the SIDO headquarters and SENDOC of the SIET Institute will be the two nodes of this information network and a system of continuous exchange of information between the various constituents of the grid will ensure optimum utilisation of the resources and fuller use of the information being collected and maintained.

For maintenance of information on scientific lines Small Industries Service Institutes should have necessary expertise and qualified staff.

33 Regulatory Information

A prospective entrepreneur is normally not acquainted with the existing policies of the Government regarding development programmes as well as the procedures which need to be gone through in setting up a manufacturing unit. He would be saved a lot of
hardship and running about, if he is briefed and guided properly in advance. Some of the procedural items in this connection are:

a) Obtaining approval of industrial power and connection thereof.

b) Licence from local Municipal authorities for carrying out the manufacturing activities.

c) Registration with/clearance from other agencies like Drug Controller, Health Authorities, etc. for certain specific items.

d) Obtaining water connection.

e) Procedure for securing financial assistance.

f) Procedure for obtaining machinery on hire purchase basis.

g) Registration under Sales Tax/Excise Acts.

h) Procedure for obtaining import licence, if relevant.

i) Incentive for export and export documentation.

j) Enlistment for Government purchase programme.

k) Foreign collaboration procedure, if necessary.

The information on the above aspects is no doubt, available, with various departments of the Government (both at Central and State levels), yet there has never been concerted efforts to bring together all at one place so that the same could be disseminated to the needy parties as a sort of assistance in one package. It is considered desirable to collect and maintain this type of regulatory information at the level of Small Industries Service Institute for the benefit of the individual parties. The topics having uniformity at the All India level such as import/export policy, excise, taxation, etc. may well be attended to at the SIDO headquarters and the latest and up-to-date information communicated to the Small Industries Service Institutes. The other topics where there are variations from State to State, the Small Industries Service Institutes themselves will be made responsible for collection and maintenance. Small handouts incorporating the latest information could be prepared at periodical intervals to facilitate the process of dissemination of information.

34 Marketing Intelligence:

Of late, marketing has emerged as one of the foremost problems being faced by the small scale industrial units. Areas where there is stiff competition from medium and large scale sector, the small scale units are distinctly at a disadvantage as their capacity to incur substantial expenditure on publicity and other sales promotional measures is very limited. At times some units have, perforce, to close down, being unable to find regular outlet for their products. This results in infructuous investment on the part of the individual entrepreneur as also the financial institutions.
and other Agencies who get themselves involved as a result of their promotional
efforts for this sector.

Enlistment of small scale units under the Government purchase programme and
opening of sub-contract-exchanges have been brought into being to help the individual
manufacturers in marketing their products. But these alone are no longer sufficient to
mitigate the hardships faced by the manufacturers. Marketing assistance is to be
clearly distinguished from marketing intelligence. While the former relates to physical
help in disposing of the products, the latter is a service which the individual manufac-
turer requires in respect of supply, prices and demand at different market centres.
Marketing intelligence is a very broad term implying a variety of information needed
for marketing and marketability of the products. It may comprise:

a) Information about the distribution channels -- whole-sales, retail sales,
   Government supplies, ancillary supplies, exports etc.

b) Price mark-ups at different stages from the factory gate to the ultimate
   consumer.

c) Market prices of different brands - whole sale, retail sale.

d) Marketing practices.

e) Facilities like after-sale services.

f) Substitutes.

The marketing intelligence collected from the field is to be supplemented by
the information available from secondary sources. It may not be desirable to cover
all the products for introducing a system of collection and maintenance of marketing
intelligence as it would involve huge staff for collection and compilation of data. The
products where the problem of marketing is very acute could be selected and efforts
made to supply marketing intelligence to the needy parties. Information on some of
the aspects mentioned above, is collected, though not on a systematic basis, by the
SIDC while conducting area surveys and other special type of studies like impact of
reservation, prospects of an industry, etc. Lot of planning and considerable amount
of investment is, however, necessary to evolve a system of regular collection,
maintenance, and dissemination of this type of information to the entrepreneur. Other
agencies like Trade Development Authority, NSIC, State Small Industry Development
Corporations are also gathering some information. Coordination between the various
agencies and exchange of available data will lead to considerable economy in expendi-
ture.

4 Phasing of Programme

Building up of Data Bank is a slow process and has necessarily to be suitably
phased. In the first phase, a system of flow of developmental data from the individual
units has to be put on sound lines. This will entail considerable efforts on a sustaining basis for which close collaboration between the Centre and the States will be an essential prerequisite. This phase of action has already taken a start. A proposal is under consideration of the Government regarding enactment of legislation for the small scale sector. This will provide legal backing for collection of statistics from the small scale units. The second phase will be the establishment of information grid at each of the SSI level with the active participation of the SENDOC of the SLET Institute. The third phase will relate to introduction of a system of collection, maintenance and dissemination of regulatory type of information. It will not be prudent to confine attention only to the first phase and wait till the same, more or less, gets going before embarking on the next phase. Resources permitting, the second and the third phases could also be taken up concurrently. As for marketing intelligence, it is too early to say as to when it would be possible to make a beginning.

The Data Bank, when fully developed, will function as a storehouse of information essential for the development of industries in the small scale sector. One can think of creating 'Product Profiles' under which all information pertaining to a particular product or indirectly relevant to it, is brought together at one place. The product profile may comprise information on:

a) Existing units in small/large scale sector.

b) Capacity/production in the small/large scale sector.

c) Demand and supply position.

d) Policy regarding its development-reserved, priority, not to be encouraged categories etc.

e) Whether covered under Excise Act, if so the rate of Excise duty.

f) Type of machinery required.

g) Availability of schemes and project reports.

h) Feasibility studies, if conducted.

i) Raw material requirements.

j) Marketing channels.

k) Prices - whole sale, retail.

l) Exports and imports.

A selective approach might have to be adopted as it may be neither possible nor desirable to cover all the products running into more than four to five thousand which are being manufactured by small scale industries. Initially, such type of profiles could be maintained in folders arranged in alphabetical order or in sequence of product codes. But ultimately it would be advantageous to transfer the data on to the magnetic tapes or even better, on magnetic disc, (a storage medium with random access feature) for much quicker retrieval.

5 Looking into the Future:

Electronic data processing is gradually catching the imagination of various agencies in the Government sector. Where huge mass of data is to be processed involving updating of a large number of individual records at frequent intervals, computerisation is the only resort, provided accurate inputs are ensured in time. If at the time of carrying out this transformation, concerned departments collaborate with other departments having computer facilities, it would be possible to dovetail the
requirements of other organisations at the initial stage and introduce some common parameters through which basic data could be exchanged on EDP system. To cite an example, registration number of small scale units could be interconnecting link between the basic data to be maintained by the SIDO, commercial banks, Office of the Chief Controller of Imports and Exports as one group. Commodity codes could be yet another common parameter through which exchange of data might be feasible between the SIDO, DGTD, DGS&D, etc. The Department of Statistics, Government of India, are in the process of bringing out 'Product Classification' codes which could be adopted uniformly by all concerned. Time has come when some serious thought has to be given to evolve a system whereby export from the small scale sector could be tabulated by the Director General of Commercial Intelligence and Statistics every month. No doubt, a series of documents will need modification and a number of hurdles might have to be overcome, yet the task is by no means unsurmountable, if the concerned Departments could get together with a will to find out a solution to this problem.