INFOMATION NEEDS OF INDIAN INDUSTRY

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Based on the queries received by the Industrial Information Service (IIS) of the Publications & Information Directorate (PID), New Delhi, an attempt has been made to analyse the information needs of Indian industry and to identify the types of industrial information frequently sought after by it.

INTRODUCTION

Information is an important resource in the creation, maintenance and development of any industry. It is a commodity which attains its true value to society only when it is utilized in the production of goods and generation of services. However, in spite of these facts, so far little or no effort has been made to study the information needs of the Indian industry.

As the amount of information service utilized by a given industry or technology is a measure of technological excellence and degree of industrialization of a nation, such studies may prove helpful in the evaluation of the same. Moreover, they will help in planning and designing of the future information services and centres, in undertaking user studies and strengthening the existing services and centres.

Since 1977, PID has been rendering industrial information service under which technical enquiries pertaining to technology, R&D, and techno-economic data relating to number and distribution of manufacturing units, installed capacity, production, demand, consumption, imports and exports are being attended to. In this paper efforts have been made to have a rough idea of the information needs of the Indian industries as revealed by the queries received at PID.

For the study a period of last 4 years, i.e. 1978, 1979, 1980 and 1981 (up to September), has been chosen. Only postal requests have been taken into consideration though IIS has been receiving a good number of visitors as well as telephonic queries. The study is confined to Indian queries only though queries from neighbouring countries like Nepal or from various international organizations like UNIDO are also received.

It has been found that on an average one letter contains enquiries on more than 2 topics. And, under each topic information is invariably sought on at least 3 aspects of a product, process or the like, e.g. one may require information on manufacturers of any product with their addresses, capacity, production, export and import figures.

There has been a gradual increase of postal queries. In 1978 IIS received only 17 letters. In 1979 there were 26 whereas in 1980 their number reached 55. In 1981, up to the end of September, there were 58 letters. For the convenience of discussion information sought on one aspect of any item is taken as one query.

USERS

In general, the industrial information seekers are supposed to be industrialists from medium and small scale sectors and prospective entrepreneurs. However, the detailed analysis of the users of IIS is given below.

It is generally not possible to divide the industries into large, small, medium or cottage industries without knowing their capital investment. Nevertheless, fair guess can safely be made. Most of these queries are found either from small scale industries or from medium ones. Queries on craft-based industries were only two. Important among the large scale units were: (i) Dalmia, (ii) J.K. Synthetics, (iii) Kusum Products, (iv) Amer Dye-Chem Ltd, (v) Calico, and (vi) Hoechst.

There were also a few queries from public sector undertakings. However, industrialists community is not the only one that uses IIS. The clientele of IIS are a large group of people who are either interested in or related to the industrial production or in its development. In the present study, such users are divided into: (i) prospective entrepreneurs, (ii) industrialists, (iii) consultants, (iv) students/teachers, and (v) institutions or organizations.

As mentioned earlier, the industrialists were mostly smaller or medium entrepreneurs. Among the large and medium industrialists, as appeared from their letters, most of the people were interested in the diversion of their enterprise.

In 1978, there were 5 queries from prospective entrepreneurs, 8 from the industrialists, and only 4 were institutional queries. Presence of the other groups of users was missing. In 1979, queries from prospective entrepreneurs, industrialists, consultants, and institutions/organizations were 6, 9, 2 and 4 respectively. In 1980, number of queries received
from the users mentioned above were 11, 20, 3 and 10. Besides, 6 were students, and in 2 queries the enquirers had not disclosed their clear-cut identity. In 1981, there were 27 queries from prospective entrepreneurs, 50 from industrialists, one from a consultant and 20 from the student or teacher community. Besides, there were 4 institutional queries.

The above analysis shows that maximum number of information users are those who are already in the field, next close to them are those who intend to start a venture.

INDUSTRY-WISE DEMAND FOR INFORMATION

Before coming to the nature of queries, let us discuss the industry as a whole to which various queries are pertaining. In grouping the industries no standard classification procedure is followed. All the industries are first divided into 4 broad groups, viz. (i) engineering, (ii) chemical, (iii) miscellaneous, and (iv) craft-based industries.

The miscellaneous industries group covers the entire food industry; vegetable oils, soaps, varnish and paints; cement and concrete, asbestos, etc.; glass, ceramics and refractories; wood and timber industry; paper and paper board; plantation and agro-based industry; textile industry; leather industry; and others. Other 3 groups are self-explanatory.

The engineering industry is further divided into: metal and metallurgical industry, electrical industry, electronics, transportation industry, industrial machinery, machine tools, instruments, office and household equipment, power and energy, and other plant and equipment.

Similarly, the chemical industry is divided into: inorganic chemicals; organic chemicals; fine chemicals; petrochemicals; fertilizers; pesticides; dyestuffs; drugs and pharmaceuticals; plastics, polymers and synthetic rubber; synthetic detergents; perfumery and glycerine.

In 1978, there were only 3 queries on engineering industry (on plant and equipment). In 1979, besides 2 queries on plants and equipment, 2 were on metal and metallurgical industry and one each on electrical industry and electronics.

In 1980, there were one query on metal and metallurgical industry, 5 on electrical, 2 on electronics, one on transportation, 7 on industrial machinery, 3 on various plants and equipment and 2 on equipment used for power or energy generation.

In 1981, queries on metal and metallurgical industry reached 5, while there were only 3 on electrical industry and none on electronics. Query pertaining to the transportation industry was only one. There were 2 queries on industrial machinery, 3 on office and household equipment, 2 on plants and equipment and 4 pertaining to energy and power generation.

With this study nothing can be said about the information demand trend of engineering industry. It appears from this that there is not much demand for the information in Indian engineering industry in general.

On chemical industry, in 1978 there were only 7 queries (one each on fertilizer and pesticide, 3 on inorganic chemicals and 2 on organic chemicals). In 1979 also position was more or less the same. There were 3 queries on plastics, polymers and synthetic rubber; and 8 on organic chemicals. However, there was a slight improvement in 1980 with one query each on fertilizers, pesticides and dyestuffs; 2 on drugs and pharmaceuticals; 5 on plastics, polymers and synthetic rubber; 10 on inorganic chemicals; 8 on organic chemicals; and 3 on fine chemicals. In 1981, the position was almost similar to that of previous year with one query each on fertilizers, drugs and pharmaceuticals, synthetic detergent and perfumery; 2 on plastics and polymers; 6 on inorganic chemicals; and 24 on organic chemicals.

It can be safely inferred from this analysis that there is a growing demand for both inorganic and organic chemicals.

On miscellaneous industries, there were 10 queries in 1978 (one each on soaps; leather; paper and paper board; glass and ceramics; and agro-based industries; 3 each on cement and garment industry). In 1979, there were only 8 queries on this group of the industry. They were on food industry (1), lime (4), zip faster (1), tobacco (1), activated carbon (1), etc.

In 1980, there were a good number of queries on cement (2), food industry (2), vegetable oils and soaps, etc. (2), glass, ceramics and refractories (1), agro-based industries (4), textiles (3) and others (7). On the last item products like dis-temper, meat, yeast, etc. were there.

There seems to be sufficient increase in the number of queries in the year 1981. There are queries on cement and its pipes (6), bakery (3), vegetable oils etc. (2), soaps (6), leather industries (1), paper and paper board (7); agro-based industries (2). Besides, there were 10 queries pertaining to items like activated carbon, camera, film carbon, absorbent cotton, confectionery, wax and glue, polish, etc.

On the basis of this study, cement and paper industry are the only two major industries on which our entrepreneurs are more interested.

During this entire period there were only 2 queries pertaining to craft-based industry. These were match and agarbatti industry. It is quite likely that craft-based industries are banking for their information demand on the Khadi & Village Industries Commission.

TYPES OF INFORMATION NEED

Industrial information itself is a broad-based topic. Naturally, all sorts of queries are pouring into the IIS which can be divided into following groups: (i) techno-economic (including market information), (ii) technological, (iii) request for bibliographies, (iv) regulatory, (v) managerial, (vi) financial, (vii) referral types, (viii) consultancy, (ix) queries on machinery and equipment, (x) on training, (xi) on published products, and (xii) miscellaneous types. Their detailed analysis is presented in the following paragraphs. However, the study
does not reflect the true picture of the information demand on topics which are not covered by IIS, e.g., information on patents and standards.

The techno-economic group is very vast one. It may even include market information and any other information on financial aspects. In the present discussion market information will be discussed separately.

Techno-economic queries can further be sub-divided into: (i) manufacturers and their addresses and numbers; or suppliers of any product, raw material or machinery, or address of any organization, (ii) capacity (both licensed and installed), (iii) production figures, (iv) target, (v) demand, and (vi) future scope. Besides, quite often queries are received on raw material and its availability, total licenses and letters of intent issued, users, capital involved, supply-demand gap and economic size of the project. Sometimes, vague information like present status of particular industry or techno-economic information on certain topics is sought after.

The number of queries falling in the first sub-group in 1978, 1979, 1980 and 1981 was 6, 12, 41 and 73 respectively. Maximum queries were on manufacturers, requests for information on suppliers at second place, while requests for organizational information were only 9 throughout the period under review.

In 1978, there was no query on capacity. In 1979 number of such queries was 18 which went to 22 in 1980 and 41 in 1981. Similarly, requests for information on production during the same period were 3, 12, 16 and 42 respectively. There was no query on consumption in 1978, in 1979 there were only 2, in 1980, 7 and in 1981 there number went up to 32.

As regards demand, both present and future demand of the products are sought. Number of such queries during 4 years was 3, 9, 19 and 46 respectively. On future scope of the various products there were only 8 requests in 1980 and 5 in 1981. On involvement of the capital 2 queries were in 1979, 8 in 1980 and 5 in 1981 while on economic size of the project one each was in 1980 and 1981. Besides, there was some stray queries during the whole period on topics like target (1), raw materials (3), licenses and letters of intent (6), users (6), present status (6), techno-economic information (5), and supply and demand gap (1).

Queries on market information can be divided into: (i) export and import data, (ii) prices, and (iii) market potential (both internal and external market). 'Demand' has been covered under techno-economic information, though it could have come under this category also.

Requests for export data were 3, 2, 12, and 25 respectively during 1978, 1979, 1980 and 1981. Similarly, queries on import data during these years were 3, 6, 15, and 31 respectively. Information sought on prices was not much. There was only one request in 1978, 2 each in 1979 and 1980 and 21 in 1981. 'Market potential' is an important part of this category of information. However, there was only one query on it in 1978, 2 in 1979, 10 in 1980 and 9 in 1981. There was only one query throughout the period on importers.

Technological information has the third place on the basis of present information demand pattern. Queries falling under this category can be divided into: (i) technology, R&D or know-how, (ii) processes and products (both new and old), (iii) patents and specifications.

Under the first group there were 6, 7, 5 and 19 queries in 1978, 1979, 1980 and 1981 respectively. Out of these queries there were 9 queries which can be put under rural technology. They were mostly pertaining to waste utilization.

On processes, which includes process knowledge and process details, there were 6, 4 and 10 queries during 1979, 1980 and 1981.

In the case of machinery and equipment the requests were varied, i.e., on suppliers of machinery, equipment and their parts, list of machinery needed or workability of plant capacity and minimum economical capacity of plants. Such queries were not many, i.e., only 11 during the 4-year period, mostly in 1981.

Besides, there were 4 queries on technology suppliers or technical information suppliers, 4 on patents and one on specifications.

It can be inferred that maximum queries in this group are on technology or know-how which includes process details also.

Many people are interested on the printed publications on a particular product like books, surveys, schemes, feasibility reports, project reports, profiles, etc.

There were 18 queries on literature (printed materials like books, etc.) in 1978, and only one in 1979, 8 in 1980, and 18 in 1981. On schemes, feasibility reports, project reports, project profiles, and surveys there were 3 requests in 1978, 3 in 1979, 47 in 1980 and 5 in 1981. Demand for profile does not seem to be much, as only one each was asked for in 1979 and 1981 and 4 in 1980. This shows that only documents like feasibility reports or project reports are in demand.

It seems demand for bibliographies on industrial topics is less in comparison to other R&D topics. There were only 2 such request, in 1979, 4 in 1980 and 22 in 1981. These were mostly for bibliographies on particular topics, e.g., energy, fine chemicals, fibre glass, etc.

There were a few consultancy type queries also which had either sought the technical assistance in setting up the industry or solving some specific problem, or advice on one or the other topic. Number of such queries in 1978 was only 2, 3 in 1979, 6 in 1980 and 10 in 1981.

There has been a negligible demand for regulatory information as only 4 such queries were received in 1980 and 3 in 1981. Same is the case with managerial information and information on training aspect where there was only one request in
each category. The referral type queries were also not many (one each in 1978 and 1979, and 4 each in 1980 and 1981).

Nobody was found interested in background information during this entire period.

Besides all these queries, there were a few vague requests for supply of information like every detail of a product or complete information on it, latest information on various aspects of a industry, employment potential, profit-loss analysis, main consumers of the product, etc.

**CONCLUSION**

It can safely be concluded that: (i) among the users of information service, the small and medium entrepreneurs are in majority, (ii) maximum queries emanate from chemical industry, and (iii) there is maximum demand for techno-economic information like manufacturers of any product, its capacity, production, demand, and export and import data.

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