

# MEETING THE INFORMATION NEEDS OF RESEARCH SCIENTISTS - A SAMPLE ANALYSIS OF INSDOC DOCUMENT SUPPLY SERVICES

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*Presents an analysis of a sample of requests for copies of sci-tech documents received at Insdoc. Discusses the relevant points pertaining to the operation of the service & the overall efficiency required for meeting the need of scientists for various types of documents. Throws some light on the self-sufficiency achieved & the functioning of various information services in India.*

## 1. Introduction

Supply of copies of documents is being increasingly considered an important documentation service. In some countries the service is being provided at the national level. From its inception, Insdoc has been serving as the principal agency in the country for providing scientists with copies of scientific and technical documents for research use. The use made of document supply service has been conceived [1, 2] like other indicators as an important determinant for assessing the extent of literature use.

## 2. Objectives of the Study

This paper presents an analysis of a sample of requests for copies of scientific and technical documents received at Insdoc and is somewhat on the line of earlier reported papers [3, 4]. It also discusses the relevant points relating to the operation of the service and the overall efficiency required for meeting the need of research scientists for various types of documents. This also attempts to throw light on the self-sufficiency achieved and functioning of information services in India and the relative cooperation shown by various scientific and technical libraries and information centres and also points out its impact on NISSAT.

## 3. Parameters of the Study

1. The requests for Insdoc services have been chosen as the source of data.

2. The sources of information and types of documents have been categorized in the sense of the terms defined in the Librarians' glossary [5].

3. Publications of national and international congresses issued at regular intervals have been considered as serials whereas such publications brought out irregularly have been considered as conference papers.

4. In making the time analysis, which was however possible only for serial publications, conference papers and theses, wherever the year was not mentioned by the customer in his request; the same was obtained from various union catalogues and lists available in Insdoc's Union Catalogue Section.

5. The abbreviations for libraries and information centres cooperating in interloan/or reprographic service are those used in Document. Procurement Division of Insdoc and have been listed in full in the appendix.

6. The delay as well as success rate in supplying the orders was measured from the date the request was received to the time the copy of the document was despatched to the customer.

7. The orders received during the months of February and March 1974 which represent 24.6% of the total requisition during the fiscal year 1973-74 were chosen for analysis.

8. The orders have been grouped according to the complexity of the reference and their availability and have been detailed as below:

a) Ill-considered orders: These consisted of requests which turned out to be either cases of wrong citations or requests from book and similar copyrighted materials e.g. entire issue of a journal. This category also included requests cancelled by the customers themselves and other requests which were not live at the time of making the analysis. In some cases certain clarifications were sought from the customers but without any response.

b) Unexecuted orders: Unexecuted orders mean the requests which stood unexecuted at the time of making the analysis i.e., 31st April, 1975 either due to procedural limitations e.g., advancing money to Indian and Foreign centers while placing orders, the cost demanded by us e.g., for undertaking translation and financial constraints i.e. lack of foreign exchange with us, or under the hope that these are likely to be processed in due course.

c) Non-available orders: This category means in addition to the characteristics pointed out above that some of the centres have been tried and the others could not be tried due to paucity of foreign exchange and the customers having been informed accordingly.

#### 4. Methodology

The study has been carried out within the traditional and accepted framework of case study method. The data were collected on appropriately designed proforma.

The results have been tabulated to bring the objectives in view.

#### 5. Analysis

Altogether 3834 orders for microfilms/slides/paper photocopy/translation of scientific and technical documents from various types of publications, were received during the months of February and March 1974. This included 138 orders where the customers had supplied the original documents. In other words the number of orders against which documents were to be procured (excluding the documents supplied by customers) was 3696. Out of this as many as 120 orders were ill-considered. Out of the remaining 3576 only 2972 orders were supplied till 31st April 1975 and 604 requests remained unexecuted or non-available.

#### 6. Types of requests

The orders have been broken down by the types of publications requested alongwith age distribution (where ever possible), by the libraries and information centres contacted for getting copies of the documents, and also by the success rate of sending the document copies to the clientele.

Requisition for serials alone formed 93.2% of the total of 3696 orders (excluding 138 from enclosed documents) as shown in Table I.

The percentage for other types of documents, namely, conference papers, patents, technical reports, standard and specification, and theses and dissertations is respectively 2.1, 2.1, 1.2, 0.3 and 0.2. This shows that scientists consult serials as source of scientific information more frequently than any other source of information. However, in the findings actual ratio for various types of documents would have been a little different if we could get sufficient foreign exchange, lack of which resulted in the non-fulfillment of requests for some specialized material.

#### 7. Age Distribution of Literature

In judging the recency or otherwise of the documents requested, wherever possible, the data were broken down decade wise as given in Table I-B. It can be seen that 90.8% of the requests were pertaining to documents published during and after 1940. The individual ratio being 19.5% for 70's, 41.5% for 60's and 22.2% for 50's and 7.7% for 40's and so on which reveals that current research is based on recent findings and the literature published during earlier periods is of little use. It is worth pointing

out that BLLD reports indicate that 63% of the requests received were for literature published during the last one decade. Our findings indicate that requests for articles in serials, conference papers and theses published during the last 13 years account for nearly 61%, which is very near to the BLLD findings.

#### 8. Cooperating Libraries and Information Centres

For meeting the needs of research scientists for copies of scientific documents, Insdoc draws on the resources available in the National Science Library, libraries of CSIR laboratories, other libraries in Delhi region, namely, Indian Agricultural Research Institute, National Medical Library and other medical libraries, Indian Standards Institution, Indian Institute of Technology, Delhi University Library, Indian National Science Academy and a large number of libraries in other parts of the country. As a last resort copies of non-available references are obtained in microfilms/Xerox form from foreign libraries and documentation centres by air mail and supplied to the customers. The percentage of demand fulfilled from Indian libraries and foreign centres have been shown in Table 3. It can be seen that 61.13% of the total requests were fulfilled from resources available in the country and 21.98% from foreign centres and the remaining 16.89% were still being tried or customers were informed about their non-availability. The degree of cooperation and response shown to our work vary from library to library and consequently the execution time range from a few weeks to months together.

#### 91 Supply Speed and Time Lag

Out of the total 3834 orders 120 were ill-considered orders and among the rest of 3714 of valid requisitions as many as 377 (10.505%) were supplied within four weeks time or within a month, the same month and as many as 1476 (39.74%) after more than one month's time, 2020 (54.38%) at the end of two months time and 2257 (60.77%) at the end of three months time and so on as shown in Table No. 4.

About 12.33% of the requisitions were still being processed at the end of 52 weeks time in the hope of satisfying them at later date or as soon as the foreign exchange was made available. Nearly 4.55% of the requisitions were cancelled since the other alternative source could not be tried again due to reasons given above.

#### 92 Gaps in Existing Resources

It can be seen from the Table 5 that our resources are far from satisfactory in respect of such specialized material as patents, technical reports, conference papers and theses and dissertations for which nearly 2/3 requisitions (60.85%) lay unexecuted. However the situation in case of standard and specifications was found quite

TABLE 1: Percentage breakdown for various types of information sources

Decades	Serials	Conference papers	Theses & dissertation	Books	Patents		Standard Specification	Technical Reports
					A	B		
70's	672 (10)	17	3	x	US	43		
					Br	12		
60's	137 (17)	37	6	3	Ger	7	12	
					Jap	5		
50's	756	21			Fr	4		
					USSR	4		
40's	268	1			Indian	1		
30's	168	2			Other	1		
20's	87	1						
	107	x						
G. total:	3445(93.209)	79(2.083)	9(0.243)	4		77(2.083)	12(0.324)	70(1.893)

TABLE 1-B

Type	Decade	70's	60's	50's	40's	30's	20's	Before 20's	Grand Total
Serials		672	1387	756	268	168	87	107	3416
Conf. Papers		17	62	21	1	2	1	-	79
Dissertation		3	6	--	-	-	-	-	9
GT in %		692 (19.47)	1455 (41.52)	777 (22.17)	269 (7.67)	170	88	107	3504
									90.846%

TABLE 3. Number of requisitions supplied by collaborating Libraries &amp; Information Centres.

Time Lag	NSL	LARI	NML, ISI Delhi Lib.	Other Libraries in India	BLLD	CNRS	Viniti	National Library of Medicine	National Diet Library	Hungary	Other foreign libraries	Total	Unfulfilled requests
1	2	3	4	2	6	7	8	9	10	11	12	13	14
At the end of same month	251	2	8	2	-	-	-	25	-	2	-	290	
1	401	306	254	16	8	49	-	29	-	4	5	1072	
2	140	122	121	18	2	114	1	4	7	-	12	541	
3	61	28	44	24	7	28	1	9	17	-	7	226	
4	13	19	27	55	16	34	19	8	26	-	8	225	
5	12	5	8	28	13	23	4	13	6	-	6	118	
6	7	2	2	33	27	13	2	2	-	-	8	96	
7	3	-	-	20	15	-	5	3	-	-	-	46	
8	-	-	3	16	53	5	1	1	2	7	-	88	
9	1	-	4	24	33	5	-	1	-	-	5	73	
10-13	-	1	10	95	58	14	-	1	-	13	5	292	604
G. Total: & %	889 (24.86)	485 (13.56)	481 (13.4)	331	232	285	33	96	58	26	56	3576	604
	61.13%				21.98%						16.89%		
								83.11% (604)					

satisfactory. Hence the plans should be drawn up to become self sufficient in national resources with priority emphasis on specialized literature.

TABLE NO. 4: Supply Speed

Months end	No	Progressive Total (3714)	%
Same	377(87)	377	10.505
1	1099(27)	1476	39.741
2	544(3)	2020	54.388
3	237(11)	2257	60.770
4	228(3)	2485	66.90
5	121(3)	2606	70.16
6	98(2)	(103) 2913	78.43
7	48(2)		
8	88		
9	73		
10-13	197	3110	83.73
Unfulfilled	604	3714	
Grand Total		3714	

Note: Figures within parenthesis indicate the number of requisitions sent for document supply service with material enclosed.

## 93 Second and Subsequent Locations and Delay

It is found that all the requisitions are not fulfilled at the first attempt as the material may not be

available readily. Requisitions may be turned down by collaborating libraries on account of publications not on shelf, publications issued out, too many pages to copy, loose issues not available on loan and so on. In this way out of 2972 requisitions and nearly 230 (7.73%) of the cases, the locations were tried second and subsequent times. The requisition tried for location 3rd time numbered 75 and similarly for fourth and subsequent times numbered

21. The worst part of this is that in some cases information regarding non-availability is received very late, if not reminded or followed up, which consequently affects the speed adversely.

## 94 Conclusions

Our science libraries are by and large becoming self-sufficient in serial literature as the percentage of unfulfilled requisitions is only 13.38%, but the situation so far as patents, conference papers, dissertations and technical report literature is concerned is still very unsatisfactory (failure rate being of the order of 60.85%). For such literature we continue to depend on foreign sources. As regards standards and specifications, the library of the Indian Standards Institution, Delhi is in a position to satisfy and offer full range of standards information services. As regards report literature though Bhabha Atomic Research Centre and National Aeronautical Laboratory have massive collections but they are primarily in the field of nuclear and aeronautical sciences and for other types of reports we are still dependent on foreign sources.

The delay or waiting time range from few weeks to several months and only 70.16% of the requisitions get fulfilled at the end of 5 months. The delay can be attributed to lack of library cooperation, absence of a truly national information system, lack of up-to-date location tools, and lack of adequate foreign exchange release, besides the lack of necessary manpower and consequent difficulty in proper follow up action.

TABLE 5. Unfulfilled requisitions

Serials	Theses	Technical Reports	Conference Papers	Patents	Standards & Specifications	GT	Books
Total Requisitions	9	70	70	77	12	3692	4
3445			235				
Unfulfilled	5	51	45	42	Nil	604	4
461			143				
% 13.381			60.851			3692	36%

## MEETING THE INFORMATION NEEDS OF RESEARCH SCIENTISTS

### 95 Suggestion

On the basis of the above analysis it is suggested that the proposed library and information centre of patent office, at Calcutta or elsewhere should undertake documents supply service as one of its main functions.

Our science libraries should give due attention to the organisation of conference proceedings, dissertation and technical report literature, besides serial literature, preferably by maintaining separate sequence entries in their catalogues. A union catalogue of such specialized collections would be very useful, if compiled.

There is an immediate need of updating the Union Catalogue series of Insdoc at regular intervals.

The Documents Supply Service Division should be equipped with up-to-date tools required for drawing on the resources of foreign documentation centres and libraries and must get necessary foreign exchange release since Unesco Coupons are no longer available for procuring copies of documents from abroad.

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