Information and industry – a survey of western Australian industrial information needs

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INFORMATION & INDUSTRY - A SURVEY OF WESTERN AUSTRALIAN INDUSTRIAL INFORMATION NEEDS

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Introduction

Perth, the capital of Western Australia and Fremantle, its associated port city, together with their respective suburbs, contain a large proportion of the total Western Australian population. The Perth/Fremantle areas contain a population of 900,000 while the entire state contains only 1,300,000. The majority of Western Australian industries are located in the Perth/Fremantle areas with only small concentrations in other cities or towns. Bunbury, a city with a population of 23,000 located 180 km south of Perth, contains the largest concentration of industries outside Perth and its environs.

Industries in Perth, although having a large population to serve, are disadvantaged by distance when seeking markets in other parts of Australia. The two largest cities in Australia, Sydney and Melbourne, are both over 3,000 km from Perth.

A project to survey the information use and information needs of Western Australian business and industry was undertaken by the Library of the Western Australian Institute of Technology (WAIT) between November 1983 and June 1984. The survey, funded under a Federal Government grant, involved a team of five consisting of four graduates who conducted personal interviews with industrial representatives, and a typist. The four graduates were equipped with portable computer terminals in order to demonstrate computer searches at the end of interviews when industrial representatives showed an interest.

The W.A. survey covered 605 industries, 495 of these in Perth or Fremantle and 110 in Bunbury. A preliminary pilot study of 52 firms was undertaken with the aim of both gathering information for development of the questionnaire and for providing practice for the team in interviewing and in demonstrating computer searches. The questionnaire used in the pilot study had been used in an earlier study of the information needs of industries in Great Britain, Sweden and the United States of America by the author in 1983.(1) This overseas study investigated 45 industries and included visits to several science or technology parks in these countries. Results of this study were very useful in planning the W.A. survey.

Following completion of the pilot study the questionnaire was redesigned, resulting in a new version which incorporated four new questions and eliminated two others. These changes were required in order that the questionnaire was relevant for a much broader range of industries than had previously been met during the overseas study.

Following completion of the main survey of 605 industries, data from the questionnaires was loaded into WAIT's DEC-10 computer. This data was analysed using 1022 software. An interim report was published which presented major conclusions.(2) A final report of the project will be published shortly.(3)

Objectives

The Business Information Research Project (BIRP) was an exercise in communication in which information was exchanged between interviewer and interviewees. The Field Officers who visited a range of industries on their own premises, obtained data from
participants and in turn described some of the information services with which they were familiar and in which they thought the industries could be interested. Although studies of this type had been conducted in other Australian states and overseas, no comprehensive study had previously been made in Western Australia.

The seven main objectives of the Project were:

1. To identify the range of printed information being used by different industries.
2. To identify the sources of this information (both document supply centres and other information services).
3. To measure the frequency of use, usefulness and satisfaction with the above.
4. To investigate the personnel involved in information supply, both within and from outside the organisation.
5. To determine the possible need for a commercial information service and to measure the level of anticipated use.
6. To demonstrate online computer retrieval of information using portable computer terminals taken into the interview.
7. To inform industries about existing information services.

In order to meet all of these objectives, it was necessary to provide training for the four graduate members of the Project team. This training included use of online computer retrieval of information, and a knowledge of existing information services being offered by the various university and college libraries as well as by the State Reference Library.

The Pilot Study

The 52 firms which made up the pilot sample were composed of personal contacts known to team members, WAIT Library industrial clients, and some industries randomly selected from various business directories. Although the pilot study commenced shortly after Christmas, there was little difficulty in arranging interviews even at this time. Where possible, computer searches on AUSINET were demonstrated although some clients were familiar with this service.

A major benefit of the pilot study was that it provided a thorough testing of the questionnaire which had previously been used overseas. This questionnaire had been designed for use with predominantly high-technology industries and as a result was not entirely satisfactory for the wider range of Perth industries surveyed. In spite of the very different groups surveyed in the pilot study and overseas, it was surprising to find that answers to many questions were remarkably similar. Because of this similarity of responses, the pilot data was therefore included in the report of the overseas study.

In order to provide the project with an identity independent from the Library, a logo was designed by one of the team members and reproduced on all stationery. Business cards were printed which recorded the names of all interviewers and these cards were found to be particularly useful when further contacts were required.

The Main Survey - Perth, Fremantle & Bunbury

A list of business mailing addresses was compiled from a range of sources including business directories, mailing lists from associations, and registrations at government departments. No one source was sufficiently comprehensive to be used on its own.
A total of 1,647 addresses were selected and details recorded on cards. The cards were later divided into four zones to ensure comprehensive coverage of the metropolitan district and to shorten the driving time between interviews. In all, 1,162 firms were sent an introductory letter, most of these also having a brochure included. Of these, 841 were contacted by telephone with 182 declining an interview, 139 being contacted but an appointment not made due to outside variables even though the firm did not decline an interview, and 520 firms which resulted in interview appointments being made. These 520 appointments resulted in 495 valid questionnaires from a total of 497 interviews, the remainder of appointments not resulting in interviews. The 182 firms which declined an interview represented 21.6% of the firms contacted. This proportion was much lower than had been expected and the high acceptance rate was attributed, at least in part, to the care taken with producing high quality correspondence.

Although a random sampling technique had been used, the sample varied from a low of 0.4% of the Recreation industries, to a high of 6.5% of the Manufacturing industries. In the last months of the survey an effort was made to increase the representation of types of industries that were poorly represented. Overall, the sample surveyed 1.4% of the total industries although the proportion was much higher in Bunbury (8.7%). The sample was also seen to be biased towards larger industries when final analysis of the data was completed. Information obtained from the Australian Bureau of Statistics enabled a comparison of the survey sample to be made with the total industries. The reason for the bias towards larger industries and towards manufacturing industries is probably a result of the bias in various business directories which were being used to obtain the sample.

Survey Results

Responses from Bunbury industries were generally very similar to those obtained in Perth or Fremantle, Bunbury responses generally being less than Perth for each question but the order of popularity being the same in both areas. In the survey sample, Bunbury contained a higher proportion of small firms than did Perth, this factor probably contributing to the lower responses from Bunbury firms.

*Types of information being used*

In both Perth and Bunbury, technical information was the most popular type used, followed closely by marketing information. Government information (regulations and legislation) was the next most popular. Technical information was used by 68% of all industries, marketing information by 60%, and Government information by 44%. A considerable variation in use between different industry groups was obvious with most use of technical information being shown by Mining industries (94%), and least use by Finance industries (53%). Mining industries also recorded the highest use of Government information (72%) while the lowest use was by Agricultural industries (33%).

*Types of material used as sources of information, on and off the premises*

Reference materials (databooks, handbooks, etc.) recorded the highest use with an overall 76%, trade or suppliers' publications came next with 71%, and journal articles were also popular with 70%. At the lower end of the scale, patents were the least popular (14%) and conference papers the next least popular (38%). Patents and conference papers were the two types of materials held predominantly off the premises rather than on the premises. Most other materials were held predominantly on the premises.

*Places as sources of information outside the organisation*

Suppliers rated the most highly (67%) followed by trade and industry associations (63%). Research organisations (20%), public libraries (21%), and university or college libraries (18%), were the least popular places to obtain information. The overall popularity of suppliers was influenced by the large proportion of manufacturing industries in the survey sample (42%).
For public libraries the highest users were Finance, Community Services, (which included consultants), and Mining. No use was recorded by Agriculture and little use by Construction. For university or college libraries the highest use was recorded by Community Services followed by Finance and Mining. No use was recorded by Transport and little use by Wholesale/Retail. These findings are particularly important for any university or college library which is contemplating promotion of an industrial information service. It is obviously more productive to promote a service to industries which currently demonstrate active use of the library.

Outside sources of information which also recorded consistently high responses across all industrial groups were personal contacts. These contacts are obviously highly valued sources of information as well as being extremely varied ones. The previous study of overseas high-technology industries by the author also showed that personal contacts were most valued, in some cases being the prime reason for an innovative industry to remain located in a particular area.

Information seeking patterns
Information seeking by the individual who required the information was the most popular method, with 72% of the industries recording this answer. The second most popular choice, using another person on the premises to obtain information, rated only 30%. Again, this pattern had previously been discovered in the overseas study, although these industries were quite different from those surveyed in Western Australia.

Frequency of use and methods of contacting outside sources of information
In addition to recording the types of information which were being used and the places in which they were obtained, the frequency of use of sources outside the organisation were also recorded. This revealed that for both suppliers and personal contacts, use was eight times as frequent as for research organisations, the least frequently consulted source. Trade and industry associations, public libraries, and university libraries were all used 1·5 times as often as research organisations. This frequency of use must be taken into account when looking at the importance of particular sources. Trade and industry associations are used by more industries than are Government departments, but the former are used only half as frequently as the latter.

Methods of contact
The questionnaire recorded three different types of contact, telephone, letter, and personal visit. In most cases a telephone contact was the preferred method of obtaining information although for libraries, a visit was by far the most popular. Contact by letter was the least popular for libraries but the most popular for research organisations.

Conclusions
The survey of 605 businesses in Perth and Bunbury revealed that the business community was aware of the importance of information for business survival. A majority of respondents recognised that there was a need to gain access to information held outside the immediate organisation although this need was also coupled with a lack of knowledge of existing information services.

Results of the survey interviews showed there was an urgent need to establish a commercial information service which would act both as an information provider and as a referral agent for existing information services. Existing services in Perth are fragmented, difficult to locate and impossible for most industries to understand. A major recommendation is that a Commercial Business Information Centre (CBIC) should be located on the newly developing Western Australian Technology Park. A majority (66%) of the firms surveyed, indicated they would use a commercial service if one was established. It is important that such a commercial service would be made available to all sections of the business community, providing a single reference point for all information requirements.
The survey discovered that some firms would require that information supplied to them would not also be supplied to their commercial rivals. Industries operating in these commercially sensitive areas require both a confidential service and exclusive access to information. This conflict, between the need for exclusive access to information and provision of a general information service to all parties, can be overcome by operating a two-tier service. Under this arrangement, special services would only be offered to a small group of industries which operated in different fields, thus avoiding commercial conflict.

Industry in general, and Bunbury industry in particular, felt isolated from both government and academic organisations. The formation of a commercial information service which was available to the business community in general would greatly assist in breaking down the barriers between the various parties concerned.

References

