A SURVEY OF THE INFORMATION NEEDS OF
FOUR PROFESSIONAL OCCUPATIONAL GROUPS

AND

A SURVEY OF NEW SPECIAL LIBRARIES

By

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A thesis
submitted to the Victoria University of Wellington
in fulfilment of the
requirements for the degree of
Master of Arts
in Librarianship

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My opinion is that it is better for you to finish now what you began last year. You were the first, not only to act, but also to be willing to act. On with it, then, and finish the job: Be as eager to finish it as you were to plan it, and do it with what you now have. If you are eager to give, God will accept your gift on the basis of what you have to give, not on what you haven't.

2 Corinthians 8:10-12

(Good News Bible. Today's English Version).
ABSTRACT

This thesis consists of two surveys. The first attempts to identify the information needs of accountants, consulting engineers, lawyers and pharmacists in an effort to provide direction for the development of library and information services to those professions. A personal interview survey was conducted among a random sample of practitioners from each profession in the Wellington district. It was concluded that all four professions need continuing education opportunities to assist them to obtain improved access to both professional and general information. This need has arisen in part because librarians have not adequately marketed their services. It was further concluded that co-operation from each professional body, practitioners, society as a whole, and librarians is needed so that information centres to meet the needs of practitioners can be established.

The second survey attempts to establish a methodology that can be used by librarians of special libraries in the conduct of user surveys which will provide them with evidence of the effect of their services. It also attempts to demonstrate the benefits found by staff in firms where special librarian positions had been established for less than five years.

Self-completed questionnaires were distributed to professional staff in six Wellington firms. It was concluded that there are some basic patterns common to the development of new special libraries, and that the employment of a librarian can be of tangible benefit to a firm. Guidelines for those setting up new special libraries are suggested.
It is further concluded that application of the user survey methodology established in this thesis would assist librarians of special libraries to assess their existing services, and to change emphases where necessary to meet expressed needs.

It is also shown that librarians need to market their services, and understand their role in educating staff to exercise their individual and collective responsibilities as part of a firm's network of information resources.
ACKNOWLEDGEMENTS

There are many people whose support enabled this thesis to be completed. Firstly, I wish to thank my husband Havell, and my children, Edmund, Hannah and Naomi for their encouragement, love, and help at all times. Secondly, I acknowledge the support of my friends, and in particular that from Neroli Dempsey, Eva and Alby Evans, Stephanie Lambert, Craigie Sinclair and Gay and Anthony Williamson, who sustained their interest to the end.

I thank also many librarians, known and unknown, who processed inter-library loan requests, checked references, and provided prompt service.

I am most grateful too, for the assistance and support provided by the staff of the Department of Librarianship at Victoria University of Wellington. It was Mr Roger Fenton who first suggested I should undertake this course of study. Professor Roderick Cave has provided careful and gentle leadership throughout, while Mr Alan Richardson and Mr Richard Hipgrave have provided administrative and personal support. Dr Stephen Haslett from the Institute of Statistics and Operations Research willingly guided me through the statistical analysis and computer operations, while Mr Ross Renner and Mr Jim Gellen provided additional help.

I also acknowledge with thanks, a grant of $2500 provided from scholarship funds by the Trustees of the National Library of New Zealand.
Finally, I thank all those who gave their time either to be interviewed or to fill in questionnaires. Without their goodwill, the two surveys of this thesis could not have proceeded successfully. It is my hope that librarians will use the results of these surveys to improve their services to benefit the professions concerned.
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SURVEY 1

A SURVEY OF THE INFORMATION NEEDS OF FOUR PROFESSIONAL OCCUPATIONAL GROUPS
Chapter 1

INTRODUCTION

In 1982 the Cabinet Committee on Expenditure asked the Minister of Education to request the Trustees of the National Library to "review the effectiveness" of the Scientific and Technical Information Service (SATIS). The Trustees were to make recommendations on the "place of the service within the New Zealand information network" and "charging for the service where appropriate to ensure maximum economic return for Government investment."¹ It was known that this request:

stemmed from a Treasury/State Services Commission nomination of SATIS as an additional saving which could be made under the New and Existing Policies Review 1982.²

Submissions from users "affirmed the value of the service and many commented on the desirability of its growth so that it could be more widely available."³

Fortunately, the government accepted the Trustees' recommendations that the service "should be continued in improved form", with "increased government funding" and "strong central management" to ensure "proper accountability for such an investment."⁴

² Ibid.
³ Ibid., p. 17.
⁴ Ibid., pp. 3-4.
Understandably however, many librarians perceived this review as a threat to one section of New Zealand's library services. SATIS, which began in 1974 was, and is, a government-sponsored service for industrial and commercial organisations with specific information needs. It exists to help those organisations by providing the kind of information that will assist them to function more effectively and economically. SATIS was created to promote the better use of New Zealand library and information resources, "in technical, scientific, commercial manufacturing and marketing subjects."\(^5\)

The concern of librarians was that if this service was discontinued there were few alternatives available to fill the gap. It was known that the number of special libraries was starting to increase. The 1974 edition of the Directory of Special Libraries in New Zealand\(^6\) listed 166 special libraries and collections while by 1981, when the next edition was published,\(^7\) the number had almost doubled to 314. It was felt that this growth was insufficient to meet the gap that would be created if SATIS were to close.

In addition, in servicing firms without libraries, SATIS was promoting librarianship and the value of a library collection to people in the business and commercial world. It was hoped that in time, people in the larger firms would see the value of the service provided, and seek to establish their own in-house library with a professional librarian. If SATIS were to close, there would be only one or two librarians working

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as consultants in the business area to promote libraries and librarianship.

However, the problem was that there was no research into this area of need in librarianship in New Zealand, so that while submissions could be based on opinion and experience, there was no proven research to guide the committee formed by the Trustees of the National Library.

It was this lack of research into the need for improved information services that drew my attention, and ultimately led me to undertake the research for the two surveys of this thesis. The fundamental reason for the research was that generally most businesses in New Zealand needed to improve the quality of information on which they based their decision-making. They needed to be persuaded that information is the key resource to all planning and decision-making. All other resources depend on the resource of information and knowledge, and it is the perception and evaluation of that resource which results in decision-making. You can not use that which you do not know, so the availability of information determines the quality of decision-making. Information thus has great economic value, since decision-making should be determined by up to date, accurate and comprehensive information.

1.1 THE RESEARCH PURPOSE

The original purpose of the research was to undertake a survey on the use (and non-use) of libraries and information collections by New Zealand companies in the business/commercial sector, where professionally qualified librarians were not employed. It was hoped to investigate the attitudes of a cross-section of the business community to libraries and librarians. It was hoped that if the attention of the
business community could be drawn to its lack of information expertise, then the library community and SATIS would have a base on which to coordinate their efforts to try to provide that valuable missing service.

A second survey was proposed as part of the research to assess the effects within some New Zealand organisations where a professionally qualified librarian had been appointed within the previous five years.

However, when the methodology and survey techniques for the surveys were being finalised, it was found that the first survey was not feasible. Planning assistance and advice was sought from the Institute of Statistics and Operations Research staff who provide a statistical consulting service to the University. They pointed out that in the original proposal to survey 100 firms, comparisons would be difficult, if not impossible, as the general requirements for statistical validity (within five percent accuracy) are that at least 400 companies should be surveyed in each grouping. Companies are commonly defined in three groups - manufacturing, retailing/wholesaling, and service organisations. For survey purposes they are then further defined within these main categories by industry groups and/or specific trades or professions.

In one study 2000 New Zealand manufacturers were surveyed to establish their need for technical information. Marie Keir and George Stuart conducted the survey assisted by four other experts on survey design and data analysis. The project began in 1978 and publication of the report

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took place in August 1981. It was made clear to me that because I did not have similar resources I could not continue with the first survey. Manufacturers were excluded from further consideration because within an M.A. study programme Marie Keir's survey could only be updated in one geographical area and in some industry groups only. Such limited updating could result in erroneous conclusions if results were extrapolated beyond those industry groups and that location. The aim of the research was therefore revised so that its purpose was to assess the use (and non-use) of information sources, including libraries and information centres, by four occupational groups (accountants, consulting engineers, lawyers and pharmacists). The research was to be done on a case study basis.

The second survey, to assess the effects within some New Zealand organisations where a professionally qualified librarian had been appointed within the previous five years, remained unchanged.

1.2 THE CHOICE OF PROFESSIONAL GROUPS

In the first survey, the choice of the four professions deserves some explanation. Several other occupations were considered, builders, electrical contractors and plumbers being among them. Manufacturers were also considered, but having decided on a case study basis for research, it was found that without extensive travelling, there would be insufficient information to enable satisfactory comparisons with previous studies.

Ultimately, accountants and lawyers became the professions for survey because the New Zealand businessman has traditionally sought advice from them. According to Devlin and LeHeron, small business has often looked for information from these people, and they found that:
for a great many these sources have proved effective. Almost 80 percent had consulted professional advice, in contrast to 18 and 26 percent for the next placed sources - government departments and industry associations.

It therefore seemed important to focus on the information sources of accountants and lawyers, knowing that very few employed librarians to help them in their search for information. Were their sources adequate? Could they always find the information they needed? What were their problem areas in information searching, and were there any improvements that they believed were needed to help them provide quality information for their clients?

Consulting engineers were included because of the increasingly important role their profession was playing in the implementation of the new technology projects in New Zealand. Here was a profession at the cutting edge of new developments, with no professional association library to help members to keep up to date. How did they see the problem? Were there other ways that consulting engineers were getting their information, or were they, as the literature suggested, using the most accessible sources of information that provided practical solutions for their problems?

The inclusion of retail pharmacists was decided on because this group of professionals was another without a professional association library. It was of further interest because of the specialist role of pharmacist coupled with that of business manager. How were they meeting their information needs? Did they need assistance, or were they aware of and able to use the facilities available? Having established the needs of the professions, through a survey, it was hoped to look at those needs and consider the ways in which they should be met.

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One of the ways that librarians have been able to assist members of various professions and businesses is by working with them to establish small specialised libraries. This has been a growing trend in recent years, as is seen in the second survey of this thesis. However, it is easy for the members of a profession to support each other, and recommend each other as appropriate people to assist others with their information needs.

It was believed that the first survey might well show that there was a need for the expertise of librarians in several firms, but the evidence that was available to support this view was all gathered from librarians. It was therefore deemed necessary to find out from those in business firms where a librarian had recently been employed, whether any differences had been noticed. If business people had noticed improvements in the provision and quality of information received since the employment of a librarian, then other librarians could use these examples when a firm was investigating the up-grading of information services.

It was hoped that these surveys would begin to provide librarians with a basis for decision-making by finding out the needs of specialised groups of users, and generally assist with information to help librarians cope with accountability.
Chapter 2

OBJECTIVES AND METHODOLOGY

In 1980, at a New Zealand Library Association conference, Marie Keir issued a challenge to librarians:

You, as librarians, want to tackle the problem of identifying information needs in New Zealand industry and setting directions that information services to industry should take.10

Similar challenges have been issued previously. Brodribb suggested that:

...librarians ... may need to leave their libraries and go into industry. They must become aware of the problems which face business in order to recommend appropriate sources of information.11

Another challenge was issued by Kaiser:

Eighty percent of the 10,500 factories in New Zealand employ less than 20 persons. The dissemination of technical and scientific information to these small units is a major undertaking in communication. How are these factories to be made aware of the vast stores of specialised knowledge available?...

Special librarians ... could do wonders in promoting the use of specialised libraries, but you have to go out and sell your wares, not wait for people to come to you when they have the time, because they never have the time.12

It is my belief that it is not just industry that needs to be introduced to the richness of information held in libraries, but rather the majority of those who work in business and commercial undertakings in


New Zealand. Librarians are aware that the majority of people in our communities do not use their services, but there is little proof that this is so. Where then does one start? The answer seems to be—with a user study. Very few user studies have been undertaken in New Zealand, yet as Ford points out:

Of more use are the studies of people’s information needs and information seeking behaviour, particularly where these are based on what actually happens rather than on people’s opinions of what might happen.13

Cronin supports that view, and suggests that:

User studies ... should result in tangible benefits for the user, whoever or whatever he may be.14

He also points out that:

user studies imply a willingness to relate product or system design to the perceived needs of those for whom the product or system is intended.15

In other words, if we undertake user studies, all members of our profession of librarianship should support that research, and be prepared to undertake changes in their policies, strategies, and in the distribution of their resources, if this is shown to be necessary.

Line sees no objection to surveys:

The survey is a recognised and accepted part of modern society. It is one of the means by which society keeps itself informed, a way of bringing under control situations of increasing size and complexity, of obtaining perspective and standards of comparison.16


15 Ibid., p. 37.

As discussed earlier in the Introduction, it seemed logical to start finding out the information needs of those who advise the majority of businesses in New Zealand - accountants and lawyers. Additionally, it seemed important to discover the information needs of the group at the cutting edge of the energy technology projects - consulting engineers. The fourth group, pharmacists, were included because of a personal interest in the provision of information for that profession, which seemed to have largely been neglected by libraries and librarians.

The survey objectives were:

1. To identify sources of information used by accountants, consulting engineers, lawyers and pharmacists.
2. To identify the kind of information services needed by accountants, consulting engineers, lawyers and pharmacists.
3. To assess the role of libraries in meeting the needs of accountants, consulting engineers, lawyers and pharmacists.
4. To discover whether accountants, consulting engineers, lawyers and pharmacists are prepared to pay for the provision of information.

2.1 HYPOTHESES

A basic assumption for this research was described by Chen and Hernon.

Information-seeking behaviour represents an individual's reaction to the stimuli of information need, available sources, and the characteristics of the information seeker. Taken in combination, these elements determine the nature of information-seeking responses in any given context.17

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With this assumption there were two hypotheses on which the methodology for this thesis was based.

They were:

1. That many people in business in New Zealand do not know how to obtain correct, current and comprehensive information to assist them in their decision-making.

2. That many people who manage a business, or who give advice to business managers, do not know about library services such as inter-library loan, reference and information searching, on-line searching by computer, and the services offered by the Scientific and Technical Information Service (SATIS).

2.2 SURVEY PROCEDURE

A Unesco report notes that "Unfortunately, users are rarely directly involved in the initial planning and design of information systems."\textsuperscript{18} The report says that usually "documentalists, librarians, archivists and other information specialists" start such systems. This is because they have the "technical know-how" to implement them, but they may have little practical knowledge of the needs of the users. It is therefore important that "planners of information systems strive to anticipate user needs to the greatest extent possible."

The Unesco report also states that:

A library or information analysis centre can only be successful if it has identified its user needs adequately, as well as adequately defining the groups of users which it does not intend to serve.\textsuperscript{19}


\textsuperscript{19} Ibid., p. 7.
Having considered the existing users, the needs of potential users should be examined.

By appropriate means it may be determined whether their reasons for not using the service are personal to themselves, or are due to imperfections in the information service which can be remedied. It should be recognised of course, that there are many ways of obtaining and using information: much information is transmitted informally, so that the monitoring of use of formal systems such as libraries can only give a partial picture of need.

A third group of people are those who can be identified as probably requiring information of one kind or another, but who are not provided for by an existing information service.20

It seemed to me that in New Zealand co-operation was needed between the library/information profession and other professional groups to assess information needs at the basic level of who gets what from where, and why. There seemed to be a great need for such information, particularly when lawyers were looking at computerised legal information retrieval,21 and pharmacists were setting up a videotex system for members of the Chemists' Guild.22 Yet so far, neither of these professions have conducted surveys of their members to establish their information requirements. Such surveys are needed because:

The process of meeting an information need must be viewed from the perspective of the individual information seeker; the information required must be put in the context of the life situation where the need is first perceived; and the usefulness of the information finally found to meet the need must be perceived in terms of the degree of satisfaction expressed by the seeker.23

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20 Ibid., pp. 7-8.


23 Chen and Hernon, p. 6.
This view confirmed my own belief that the only way to determine the needs of practitioners (in this case of accountants, consulting engineers, lawyers and pharmacists) was to interview a cross-section of them, preferably across New Zealand, but ultimately, realistically, in Wellington.

Various methods of collecting the information for these surveys were considered, including personal interviews, telephone interviews and self-completed questionnaires. All were considered in relation to time and cost and the amount of information required. Self-completed questionnaires were rejected because of the low response rate usually experienced. Telephone interviews were discarded in favour of personal interviews. They were the preferred method, and would enable a full survey sample to be obtained. Chen and Hernon support personal interviews.

Personal interviews, allowing a high response rate, direct interaction between surveyor and surveyed, question clarification, and the elaboration of data through the minimisation of unclear answers, is conceptually the superior form of study technique. Its primary drawback is the high cost of training and deploying interviewers in the field ... 24

In this case there was only one interviewer, so that the one disadvantage was irrelevant.

Moore also supports personal interviews:

the two biggest advantages of interview surveys are that they make it possible to achieve a complete response with different categories of a sample, and thus ensure the statistical validity of the results..., and that it is possible to collect more complex information, where necessary, qualifying answers and generally obtaining results with a greater depth. 25

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24 Ibid., p. 24.

To collect as much in-depth information as possible was indeed one of the survey aims, so that with the decision made to conduct a personal interview survey, the survey sample was then drawn up.

2.3 THE SURVEY SAMPLE

Having decided to survey accountants, consulting engineers, lawyers and pharmacists, it was essential to find an accurate frame or list of members of each profession from which a representative sample could be drawn.

The New Zealand Society of Accountants provided a list taken from its 1983/84 Yearbook of all accountants in the Wellington district. The list was corrected to 20 August 1983.26

The Association of Consulting Engineers New Zealand provided their List of Members for 1983.27

Two lists were provided by the Wellington District Law Society. The first was the Legal Services Directory 28 for the Wellington District, while the second was a copy of the membership list29 which was kept up to date by District Law Society staff, and was corrected to 1 August 1984.

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The Pharmaceutical Society of New Zealand also provided two lists of members. The first was a New Zealand wide Register of Pharmacists which was correct as at 11 August 1983. The second was a photocopy of an address list of Wellington Branch members of the Society, corrected to 3 April 1984.

Selection of a sample from the individual professional groups was essential. A geographical boundary was firstly established which was based on one hour's driving time from central Wellington. This was the boundary used by SATIS to establish its area of responsibility for the provision of information to scientific, technical and business enterprises.

Two further limitations were decided on. The decision was made to exclude from the survey those professionals whose firms employed a qualified librarian. In addition, all participants had to be employed in a professional service firm. This excluded for example, a pharmacist working in a hospital, an accountant working for an oil company, a lawyer working in the public service, and a consultant engineer working for a firm that employed a professional librarian. The rationale behind this decision was simply that we did not want to survey those people who had easy access to information through their own government department or company library. Rather, the survey attempted to find out where people sought their information when they did not have access to in-house library and information services.

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31 "Wellington Branch Members as at 3.4.84" (Wellington: Pharmaceutical Society of New Zealand) Unpublished list.
Within the described limits, the frame for each of the professions gave the following numbers - 465 accountants, 59 consulting engineers, 490 lawyers, and 259 pharmacists. It was clearly not possible to survey the total populations within each group, so a sample had to be selected to make the survey feasible. This was achieved by random sample. Within each professional group, each eligible person was given a sequential number, and then selection was made using a table of random numbers.\(^{32}\)

It was decided that the maximum number of case study interviews that could be conducted was 200, because of both time and financial limitations. Statistical calculations were made by Dr Stephen Haslett from the Institute of Statistics and Operations Research at Victoria University, to establish the exact size of the sample. Eventually, the sample consisted of 57 accountants, 31 consulting engineers, 58 lawyers and 51 pharmacists. With a random sample of this size, the expected maximum margin for error can be calculated at plus or minus 12.5 percent at the 95 percent level of confidence. (See Appendix A for the mathematical and computer calculations undertaken to establish confidence intervals).

2.4 INTERVIEW SURVEYS AND RESPONSE

After the design of the questionnaire (details of which are given in the next section) two pilot interviews with members of each professional group were held. Extensive comment had been sought previously from friends in the four professions, fellow librarians, business people and Victoria University staff in both the Department of Librarianship and the Institute of Statistics and Operations Research. A few minor

alterations were made to the questionnaire, reversing the order of two questions and adding two topics to Question 6. It was also decided to ask respondents for a specific information search example (Question 12) as well as how much they spent on information (Question 5).

In order to seek support from members of each profession for the survey, each of the four professional bodies was sent a letter seeking support in principle for the research. These letters are included as Appendix B, Items 1-4. A request was also made for a brief note of the research project to be included in an appropriate publication, to alert members to the forthcoming survey. The Association of Consulting Engineers,33 the Wellington District Law Society34 and the Pharmaceutical Society of New Zealand35 all did so.

The selection of those to be interviewed was then made using random numbers, and each person received a letter outlining the purposes of the research (see Appendix C, Items 1-4) and requesting a half-hour interview, to be arranged in a subsequent telephone call. The follow-up telephone call was made within a week of receipt of the letter, and if the respondent was willing to be interviewed, an appointment was made. After the interview, each respondent was sent a letter thanking him/her for participation (See Appendix D, Items 1-4).

Of the first 57 accountants in the random selection, 23 had to be replaced. Three were overseas, three had retired from practice, and three were not eligible because they were not in private practice. Six


people had left their firms leaving no forwarding address, while four refused to participate because they were "too busy". Three others refused giving no reason, while one refused saying that he had been in practice for 30 years, knew all he needed to know, and was not going to change his habits now.

Ten of the 31 consulting engineers from the first random selection had to be replaced. Three had retired, and one had moved to Christchurch. Two were too busy to participate, and two more refused on the basis that someone else in the firm had agreed to be interviewed. Two declined, giving no reason.

Twenty lawyers from the first 58 selected had to be replaced. Six were overseas, and eight had either left legal practice or left Wellington. Five refused to participate because they were too busy, while one person was on extended sick leave.

Seventeen of the original 51 pharmacists had to be replaced. Twelve had left pharmacy, and one was overseas. One person was "not keen on surveys", and another was too busy. One refused saying that he had discussed the survey with doctors in the local medical centre and believed that the "client confidential relationship" could be breached by participation. One pharmacist agreed to be interviewed, but then refused to see me when I arrived at the appointed time.

Interviews began in the first week of September 1984, and approximately twenty were conducted each week. The final interview took place on 12 November 1984. In arranging interview times, no attempt was made to interview all members of one profession first. Rather, a mix of respondents from the different professions was sought, so that if any unforeseen problems arose, suitable amendments could be made to the questionnaire at an early stage. This did not prove to be necessary.
2.5 THE QUESTIONNAIRE

A nine page questionnaire was designed as the survey instrument for all interviews. This questionnaire is included as Appendix E. Moore's advice on interview surveys was followed, with questions being carefully worded, and the format following previously successful research questions where possible. The letter sent to prospective participants (see Appendix C) tried to:

convey the function and purpose of the survey in such a way that it will encourage the respondent to agree to participate.\textsuperscript{36}

Then for the interviews it was agreed:

The early questions should be easy to answer and should aim to put the respondent at ease. Any contentious or difficult questions should be about half way through, at the point when some rapport has been established and before boredom sets in.\textsuperscript{37}

Questions were put into a logical order so that each question could be answered in the light of the previous ones.

Of the 35 questions, only five were open-ended. Nine of the pre-coded multiple-choice questions asked for personal details (educational qualifications, age, work experience, etc.), while the other 21 related directly to the use, availability and sources of information used by the respondent. The majority of multiple choice questions had the extra option 'Other - please specify' to cater for the unexpected or unusual response.

The five open-ended questions were asked to gather qualitative rather than quantitative information, and to explore all possible facets to the information available. Line suggests that open-ended questions should always be included in questionnaire surveys because respondents:

\textsuperscript{36} Moore, p. 29.

\textsuperscript{37} Ibid.
sometimes have hobby horses they wish to ride, or bees in their bonnets waiting for an opportunity to swarm. If provision is not made for this, it may make its presence felt in the rest of the questionnaire. 38

The half-hour time limit for the questionnaire interview was strictly observed, unless the respondent indicated s/he was free to continue unstructured conversation after completion of the questionnaire. Several respondents wanted to enquire about library and information services available in their area, and some wanted reference queries answered. Where possible all requests were answered, and information supplied.

2.6 THE QUESTIONS

Many questionnaires were examined in an attempt to find clear questions that avoided ambiguity and were in simple language. They also needed to be suitable for interview use, and without bias.

The survey that met the needs most closely was that used by Maguire and Kench in their survey of the information needs of manufacturers in New South Wales, Australia. 39 Fourteen of their questions were used, mostly with minor adaptation, out to a total of 34 questions.

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38 Line, p. 60.

**Question 1**

1. In your opinion is the quantity of printed material coming to your business:—
   - too little
   - about right
   - too much
   - overwhelming

The first question was designed to be straightforward and easy to answer, but it also aimed to get people thinking about the quantity of information that they dealt with each day. The option "overwhelming" was not in the original Maguire and Kench question, but was added at the suggestion of several business people who commented on the questions at an early stage.

**Questions 2, 3, and 4**

2. If you find anything of interest in the printed material, do you:—
   - read it and then discard it
   - read it and keep it
   - keep it for future reference
   - circulate it to other staff
   - seldom find anything of interest

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40 Maguire and Kench, p. 23.
3. Do you have a system for storing information, and how much information do you have in it? Is it:-

- on a file
- in a card index
- in a bookcase in your room
- in a filing cabinet for information
- in a special cupboard
- in a special room
- in the firm's library
- in someone else's room
- mental note
- other, please specify

4. In what ways does useful information come to you?

- journals/newsletters from your professional organisation
- journals that your company or organisation subscribes to
- pamphlets, brochures or circulars from trade or employers' federations
- trade magazines
- advertising brochures
- newspapers
- conversations with others in similar business
- conversations with others in similar business at seminars, meetings etc.

Questions 2, 3, and 4 were designed to find out whether respondents had attempted to set up systems to keep information of interest, and the most useful sources of that information.
Question 2 was an adaptation of a Maguire and Kench question,\textsuperscript{41} with the addition of the option 'circulate it to other staff'. It was known that sending journals on to specific staff members, with an item of interest marked for their attention, is a fairly frequent occurrence in some offices. Such shared responsibility for information is a recognised concept, and an indication of the frequency of this practice was of interest.

Question 3 was adapted from Keir's survey of 2000 New Zealand manufacturers.\textsuperscript{42} It seemed important to establish how much information respondents needed to keep, and what their preferred method was. Question 4 then attempted to find out which of the various types of information available was regarded as useful. This question was adapted from Maguire and Kench\textsuperscript{43} with three additional options - newspapers, conversations, and subscription journals.

Question 5

5. How much will your firm spend on information this year?

This question was not included in the pilot survey, but was added to see if a pattern could be established. It was expected that this would be a simple question with a simple answer. However, some of the accountants, lawyers and consulting engineers in the survey came from the same firm, and because several of those firms had distinct numbers of employees, so that they could be easily identified, the known figures could not be stated in as much detail as would have been preferred.

\textsuperscript{41} Maguire and Kench, p. 23.
\textsuperscript{42} Keir, p. 75.
\textsuperscript{43} Maguire and Kench, p. 24.
### Question 6

6. Indicate which of the following subjects you most frequently need information on, and those on which you sometimes need information.

**a)**
- **General topics**
  - Professional ethics
  - Financial management
  - Small business
  - Statistics - please specify area of need
  - Overseas developments in your profession
  - Government laws, statutes, regulations
  - Local body by-laws, regulations, etc.
  - Standards
  - Managing employees
  - Staff training
  - Industrial employees
  - Effective advertising/marketing
  - Prevention of work related accidents
  - Shop/Office fittings and equipment
  - Shop office security
  - Records management (files, archives) etc.
  - Automation and new technology (including computers, word processors) etc.
  - No advice or information needed
  - Other, please specify

**b)** **Accountants only**
- Accountability of the public sector
- Auditing
- Computing Systems
- Estate planning
- Export possibilities
  - Financial reporting/accounting
  - Inflation accounting
  - Taxation
  - Other, please specify
c) **Consulting engineers only**

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<thead>
<tr>
<th>Service</th>
<th>Description</th>
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<tbody>
<tr>
<td>Building research</td>
<td>Job costing</td>
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<tr>
<td>Chemical engineering</td>
<td>Names of businesses to which you could sell your services</td>
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<td>Civil engineering</td>
<td>Names of product suppliers</td>
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<td>Company information</td>
<td>Pollution control</td>
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<td>(capital, services, personnel) etc.</td>
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<tr>
<td>Concrete</td>
<td>Structural engineering</td>
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<td>Export possibilities</td>
<td>Tenders and contracts</td>
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<td>Fire prevention</td>
<td>Other, please specify</td>
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d) **Lawyers only**

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<th>Service</th>
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<td>Accident compensation</td>
<td>Immigration</td>
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<td>Business and company law</td>
<td>Matrimonial and family</td>
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<tr>
<td>Commercial law</td>
<td>Planning licences and tribunans</td>
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<tr>
<td>Consumer problems</td>
<td>Taxation and estate planning</td>
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<tr>
<td>Conveyancing</td>
<td>Tenancy</td>
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<tr>
<td>Criminal Law</td>
<td>Wills and estate administration</td>
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<td>Debt</td>
<td>Other, please specify</td>
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e) Pharmacists only

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<thead>
<tr>
<th>Area</th>
<th>Names of product suppliers</th>
<th>New drugs and/or product formulations</th>
<th>Pharmacology</th>
<th>Shop trading practices</th>
<th>Other, please specify</th>
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<td>Adverse drug reactions</td>
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<td>Community services/activities</td>
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<td>Drug dependency treatment</td>
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<td>Forged prescriptions</td>
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<td>Health education</td>
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Question 6 sought to collect data on the areas in which all four professions felt the need for information. An attempt was also made to get an indication of the frequency of the need. It was hoped that from the general topics, which were answered by all respondents, a comparison of basic needs across the professions could be made. The idea for this question came from a similar one in the Maguire and Kench survey.44

Questions 7 and 8

7. How often in your everyday business activities do you need ready access to information?

- several times a day
- once a day
- once a week
- once a fortnight
- other, please specify

8. Do you do your own research to find information, or does someone else in the firm do it for you?

These questions were used to get respondents to think about their need for, and dependence on information. It was thought that it is a common practice for lawyers, accountants and consulting engineers to delegate information searching and research to junior members of staff, and it was felt to be of interest to find out how often this did, in fact, happen. There was no indication from the literature of how pharmacists sought information, other than through their computer systems. Because pharmacists, (like many special librarians) are often in a 'one-man-band' situation, and are required under the Pharmacy Act to always have their pharmacy "under the immediate supervision and control of a pharmacist" 45 at all times, it was of particular interest to know how they managed to meet their information needs.

Questions 9, 10, and 11

9. How long is it since you sought information or assistance outside your business?
   within the past day
   within the past week
   within the past fortnight
   within the past month
   within the past year
   not for more than a year

10. When seeking information from an outside source do you:

   write
   telephone
   make a personal visit

never seek information from an outside source
other, please specify

11. How do you prefer to receive information or assistance:

by mail
by telephone
by a visit from someone
by a visit to someone
by casual conversation
other, please specify

Questions 9 to 11 sought to create a picture of information seeking when respondents did not have the information they needed in-house, and so had to use sources outside the firm to solve their problems. Did smaller businesses seek information from outside sources as often as bigger firms? Maguire and Kench reported that trade associations in Australia found that it was the larger firms that tended to make more use of their services, and that overseas experience had been similar.46

It was felt important to know how business people wanted to access information sources, and perhaps even more importantly, how they wanted to receive information from those sources. Was an answer given over the telephone adequate, or did some of the professions need the information in writing? Did the members of some of the professions prefer to talk over their information problem with someone else by going to see them? The answers to these questions would need to be known if information service to these professions was to be improved.

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46 Maguire and Kench, pp. 33-34.
Maguire and Kench provided the format for Questions 9 and 10. Both questions were used by Keir in her survey, while Question 11 was adapted from the Keir survey alone.

Questions 12, 13, 14, 15 and 16

12. Last time you needed information, about how long did you spend looking for it?

13. How urgently did you need the information for it to be of use?
   Immediately
   Sometime today
   Tomorrow
   Within a week
   Within a month
   Within a longer but definite time span
   Time not important
   Don't know - information for someone else
   Other, please specify

14. Did the information found meet your needs? If not, why not?

15. Is this typical of your need for information? If no, please elaborate.

47 Ibid., p. 25.
48 Keir, pp. 73-74.
49 Ibid., p. 73.
16. How often do you find relevant information after a problem has been dealt with?

Has that information been published recently?

Questions 12 to 16 sought to complete the information picture. Did respondents know how much of their working day was spent in looking for information? Were their searches successful, and able to be done within the time constraints? Were they satisfied with the answers they found, or did they have a feeling that there might be some other information somewhere else, if only they knew where? Lastly, how often did they find something in a journal or newspaper or other publication on a particular topic that had previously been dealt with? By asking if the publication was very recent, it could be established whether that information might have been easily available at the time of the original search. It was also possible that some airmail subscriptions would help. It was however, more likely that relevant information to a previous problem was found tucked away in a file, or in an older journal when something else was being searched for. In my experience, this usually indicated that more formal information systems were needed in a firm. Dermyer confirms that in the United States the Special Libraries Association has found this too.

The existence of one or more of the following situations, says the association, is a strong indication that a library is needed:..... Information that might have altered a decision turns up too late.50

Question 17

17. When seeking advice on a problem, which of the following have you (or your staff) contacted?

your own firm's library
the library of your trade, business or professional organisation (e.g. Wellington District Law Society Library, the Accountants' Society Library, etc.)
a government department (e.g. Trade & Industry, DSIR, Statistics)
your local Council
the Standards Association
the National Library
the Scientific and Technical Information Service (SATIS)
your local public library
someone in a profession similar to your own
a supplier
someone in a university
someone in a technical institute
a consultant in private practice
other, please specify

This question was asked in an attempt to discover which organisations (including libraries), services or people were approached by the members of the four professions when they had an information problem. Who or what provided easy to contact, friendly and accessible service to help solve these problems? Would there be any comments on the quality of service, or the quality of information provided?
Again, Maguire and Kench\textsuperscript{51} provided the main frame for this question. Adaptations were made by changing the names of the Australian organisations included to their New Zealand equivalents, and two further information sources were added - "Your own firm's Library" and "Your local Council".

**Questions 18, 19, 20, and 21**

18. If you don't contact libraries for your information needs, is it for any of these reasons:--

- you have all the information you need
- you do not think that a library would have sufficiently practical information
- you feel it would take too long to find the information you need
- you get the information from other sources
- in the past you could not find what you wanted/needed; you assume the same would be true this time
- libraries do not have what you want/need
- the library is inconveniently located
- library holdings are not up to date enough
- it did not occur to you
- other, please specify

19. If you have sought information from a library or information centre, did you get what you were looking for?

20. Have you used the inter-library loan service? If yes, how often?

\textsuperscript{51} Maguire and Kench, p. 26.
21. Have you ever commissioned an on-line computer information search? If yes, when?

Question 18 was a composite question composed of one used by Maguire and Kench,\(^{52}\) with a similar question posed by Chen and Hernon\(^{53}\) in their survey of the residents of New England in the United States of America. If respondents did not use libraries, what were the reasons for them not doing so? Were members of the four professions aware of all the help they could get from libraries, or did it just not occur to them to use them? Question 19, following the Maguire and Kench question\(^{54}\) sought to explore attitudes to libraries a little further. If people had gone to libraries in an attempt to find information, had they been successful in their quest? If they had not been successful, did this influence their attitude to all libraries?

We also wanted to know whether members of the professions in the survey knew about all library services. Had they ever used inter-library loan, and were they aware of computer database searching which could help them to keep up to date with overseas information before it reached them in printed form? Answers to these questions would help to show librarians whether their public image should be boosted, and if they should direct their public relations efforts into particular areas.

**Question 22**

22. In order to give me a better insight into your information needs would you care to give an outline of a problem or problems which remain unsolved in your business?

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\(^{52}\) Maguire and Kench, pp. 26-27.

\(^{53}\) Chen and Hernon, p. 164.

\(^{54}\) Maguire and Kench, p. 27.
This open-ended question, used by both Keir and Maguire and Kench was included in the survey to provide respondents with an opportunity to express any areas of concern they felt about information gaps or problems that they perceived. It was an attempt to make sure that all relevant information about the respondents' needs and use of information had been covered.

Questions 23, 24, 25, and 26

23. If an information centre for accountants/consulting engineers/lawyers/pharmacists was set up, to which type of organisation or institution should it be attached to be of most use? Please give first and second choice.


A trade or professional association

A university

A public library

A technical institute

The National Library

DSIR

A new independent government-sponsored information agency

Other, please specify

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55 Keir, p. 70.

56 Maguire and Kench, p. 32.
24. The following list gives a number of ways by which information might be made available to you. Could you indicate which ways you would prefer. (1st, 2nd, 3rd choice etc.)

In a magazine which arrives regularly.

By a service that notifies you of printed information, likely to be of interest to you, which is available on request.

By a visit to a library where the information is available.

By a telephone call to an information centre which could give answers to some inquiries and direct you to persons who could give information on more specialised inquiries.

Other, please specify.

25. If an information centre was set up which was capable of supplying information of value, would you be prepared to pay for it:-

On a fee basis each time you use it.

On a fee basis if payment was tax deductible.

By annual subscription.

Not willing to pay at all. If not, why not?

26. FOR FIRMS WITH TEN OR MORE PEOPLE WORKING THERE

Do you think that employing a professional librarian or Information Officer, either full or part-time would help you in your search for information? If no, why not?
Having explored the need of the four professions for information, and their existing sources for it, we wanted to find out how they would prefer to receive information, and which organisation should provide that service for them. Would there be a clear preference for one way that all the professions would prefer to receive information? If there was, perhaps other professions would support that method. As well, we wanted to know whom the professions trusted in their search for information. Were all sources equally acceptable, and who should take responsibility for this provision - the government, the professional bodies, or the firms themselves? Again, the answers to these questions would help to provide librarians with basic information for planning services to these groups of professionals.

In Maguire and Kench's survey of manufacturers, it was found that nearly 80 percent of respondents were willing to pay for a suitable service, indicating that as well as nominating preferences and making suggestions about services, they were willing to support the formation of such a centre. Such support usually means that respondents believe that they would use the service nominated. These three questions (23 - 25) were adapted from similar ones asked by Maguire and Kench.57

The last question of this section of the survey sought to establish whether the respondent saw a need for his/her firm to employ a librarian to help in the search for information. Respondents who had less than ten people working in the firm were excluded because it was known that in New Zealand most firms employing a librarian had at least 50 people. However, it is possible for one librarian to service several different firms for a few hours each week, and the perceived need for a librarian in a firm was of interest.

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57 Maguire and Kench, pp. 28-29.
Questions 27, 28, 29, 30, 31, 32, 33, 34, and 35.

27. **BACKGROUND INFORMATION**

Is the business:

- a sole proprietorship
- a partnership
- a private company
- a public company
- a subsidiary of a large company
- other, please specify

28. What trade or professional organisations do you belong to?

29. How many people are employed in this firm including yourself?

   - Full-time
   - Part-time

30. How many people working in the firm are partners or proprietors?

31. Could you please tell me your educational and professional qualifications?

32. Please indicate your age on the table below:

   | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 | 41-45 | 46-50 |
   | 51-55 | 56-60 | 61-65 | 66-70 | 71-75 | 76-80 |

33. What position do you hold in the firm?

34. How long have you been employed in this firm?
35. What is your total experience in years in your professional field?

Questions 27 to 35, which asked for background information on the firm, and personal information on the respondent were deliberately left until last, so that the bulk of the interview time could be kept for the survey information. The information on the firm was needed so that if there were marked differences in the answers of respondents to some questions, a check could be made to see whether the size of the firm made a difference. We also needed to know whether the respondents were the decision-makers of a firm, or whether they simply searched for information and the decision was made by someone else. Age and experience can also make a difference to one’s attitude towards decision-making and information searching. Again, we might need to check these out if there were marked differences in the answers to some of the questions. Maguire and Kench provided the example for Question 27 while Keir asked about the numbers of people employed in the firm.

As is evident, the methodology for this survey relied to a great extent on Maguire and Kench for its inspiration. To use a proven methodology is helpful because it enables future comparisons to be made – in this case between manufacturers and four professions. However, while particular methodology may or may not be successful, change to meet particular needs is only possible when the providers of information understand the proven need arising from the methodology and move to change their existing systems to meet those needs.

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58 Maguire and Kench, p. 29.
59 Keir, p. 63.
60 Maguire and Kench, pp. 15-32.
2.7 DATA ANALYSIS

The questionnaire was designed with computer analysis of the results in mind. The Statistical Analysis Programs (SAS) and available on the University's IBM 4341 computer, were used to analyse the results. Answers from the majority of questions were coded on to individually designed sheets, and then recorded in the computer.

Using SAS, total answers for each alternative in every question were counted, and the results were expressed as numbers and percentages of the total number of respondents in each profession.

Where other comments were recorded, and for the answers to open-ended questions, manual recording was used.


Chapter 3

LITERATURE REVIEW - ACCOUNTANTS

In 1984 a committee of the New Zealand Society of Accountants identified "the basic qualities by which an accountant" in the year 2000 "will succeed or fail," as these:

- personal integrity and professionalism
- technical competence, both generally and in specialist fields
- skill in communication
- skill in the management of people and resources
- flexibility in the application of their abilities.63

The Main Committee which prepared the report Horizon 2000 - And Beyond believes that accountants will continue their "wide diversity of professional activities" so that in the year 2000 the role of an accountant will be based on the following definitions:

The practice of accounting incorporates the measurement, presentation, communication and attesting of financial and other economic information both quantitative and qualitative arising or expected to arise from economic events, and the management of the resources necessary for carrying out these tasks.

The profession of accounting includes all persons whether self-employed or employed who are performing the practice of accounting at the judgmental level.

The professional body of accountants includes all persons with the required qualifications, whether they subsequently perform the practice of accounting or not. In any professional tasks undertaken, these persons are bound by the standards and ethics of the professional body.64

64 Ibid., pp. 15-16.
Only twice within this report, which recommends future directions for the members of the accountancy profession, is the quality and availability of information mentioned. The first time it is concerned with the communication of information from the Secretariat to Society committees and the Executive Board. In the second instance concern is voiced over the educational consequences of "the rate of growth, and hence obsolescence, of knowledge and skills [which] is occurring at an unprecedented rate."66

Much of the discussion in this section of the report is concerned with ensuring standard qualifications and practical experience before a person is admitted to membership of the Society. There is also a chapter on professional development which concentrates on continuing education. Yet nowhere in this blueprint for the development of the New Zealand Society of Accountants is there a suggestion that access to information is a vital element in furthering the development of all practitioners.

Until very recently, there were only two libraries in New Zealand which catered almost exclusively for accountants - the New Zealand Society of Accountants Satterthwaite Memorial Library, and the New Zealand Society of Accountants Auckland Branch Library. The latest (1984) edition of DISLIC, the Directory of Special Libraries and Information Centres lists eleven other libraries with accountancy collections, which are held mainly at universities, polytechnics and government departments. However, an important step forward was made in June 1986 when the Auckland firm of Arthur Young, chartered accountants, appointed a

65 Ibid., pp. 45-46.
66 Ibid., p. 76.
professional librarian to their staff. They are so far the only firm of accountants in New Zealand to do so.

In comparison, the latest edition of the Directory of Special Libraries in Australia lists a total of 44 libraries containing considerable accountancy collections. Eleven of these are in government or state funded libraries, three in universities, and thirteen in firms of chartered accountants. The Institute of Chartered Accountants has a library in Sydney, while the Australian Society of Accountants has libraries in three states. It is also of note that four firms of chartered accountants have libraries in both their Sydney and Melbourne branches.

3.1 THE ACCOUNTANT'S NEED FOR INFORMATION

A search of the published information from 1970 onwards on the use made by accountants of information sources revealed that very little indeed has been published in this area - so little indeed, that one doubted the validity of the search. In order to test the accuracy of this result, a letter was written to the Librarian of the Library of the Institute of Chartered Accountants in London. He replied:

I regret that I do not know of any surveys of accountants usage of information. ... There does not seem to be very much research into the need for business information in the U.K.

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There is then, little to tell us what information an accountant needs. The New Zealand Society of Accountants believes that the advice of a chartered accountant is necessary for the success of a modern business. In an advertisement in the NZ Listener it suggests:

Running a business is no easy task. You need a variety of skills. Some of them highly specialised. So it's sound practice to consult the person, who by training and experience, has the range of skills you can draw on. And profit from. That person is a chartered accountant. No-one is better equipped to provide the expert advice and accurate information essential in today's competitive world. ... a chartered accountant is your business's most valuable asset.71

No mention is made of how the chartered accountant gets his "accurate information" to help him provide the "expert advice".

In the United Kingdom, it has been suggested that development of the small business sector "is being held back by a lack of the required professional advice."72 Chadwick and Tonkin identified four sources of information and advice available to the small business sector of retailing. They were:

1. Accountants and professional advisers.
2. Financial institutions.
4. Various trade and business organisations.73

Libraries as a source of information were not mentioned.

73 Ibid., p. 12.
Chadwick and Tonkin mention a survey carried out by the Association of British Chambers of Commerce in the UK which asked small firms where they would be most likely to go when in need of help. Over one third of respondents said that they would go to their accountant. Chadwick and Tonkin concluded:

that the sources of information and advice most likely to be consulted were localised and familiar, the accountants, solicitors, and bank managers with whom most small firms have contact. 74

After discussion of the sources of advice used by the smaller business, Chadwick and Tonkin reported that:

Critical examination of the available sources of information and advice strongly suggest that an 'information gap' may indeed exist. Accountants lack the formalised framework necessary to provide an adequate service to their clients. ... A gap exists in the supply of advice and information at local level and steps should be taken to remedy this. 75

A similar conclusion was reached by Young and Welsch in their survey of 193 small business entrepreneurs. 76 They found that small business entrepreneurs seem to prefer to seek information on a face to face basis, and that they tend to seek professional advice because professionals generally provide tailor-made and quick solutions.

The other side of the coin is at least partially presented by Collins in the results of her dipstick survey of the United Kingdom members of Aslib. 77 Collins tried to establish "in which areas of business information provision, users perceived difficulties." She identified three problem areas for the information seeker. The first was isolation,

74 Ibid., p. 12.
75 Ibid., p. 23.
either actual or perceived. The second was the need to respond quickly, because "when a businessman asks for information he does not want the answer today, he wants it yesterday." The third problem is perceived as being training:

the training available to recruits into business information work is inadequate, and that is despite the efforts of the library and information science schools, the Library Association and Aslib.

It seems then that currently if accountants in the United Kingdom were to consult librarians for current and accurate information for business purposes, there might be a problem in supply, both because of lack of appropriate expertise and the supply deadline.

A more specific and more recent study has been conducted by Deane who looked at the use of tax information by accountants.78 He endeavoured to examine the sources from which tax information was gathered, and to look at some of the problems experienced by practitioners in this area. He found that all respondents:

laid great stress on the importance of personal files and consultation with colleagues as sources of information, illustrating the primary need for immediate accessibility.79

Some practitioners - notably those in smaller firms - identified a sense of isolation which was interpreted as the "lack of anyone to turn to for guidance."80 Other problems occurred through a "lack of knowledge, or a deficiency in existing information sources," either because the source of information was unknown, or because there was no information source to deal with specifically local problems. Inexperience was also seen as a problem in some smaller firms, where the "pool of experience among---------

79 Ibid., p. 142.
80 Ibid., p. 143.
partners and employees is less." Finally, although the research was conducted within a limited geographical area, Deane concluded that it seemed:

probable that much the same sorts of problems and difficulties are experienced by practitioners throughout the whole of the United Kingdom.81

Two further articles voice concern over the perception of the accountant "as not being computer fluent or up to date with recent developments in information technology."82 This comment from the first article is a report from the National Information Technology Task Force established by the Australian Society of Accountants. The report points out that:

Traditionally the accountant has been the custodian of financial information of the organization. If the distinction between accounting and other information becomes blurred as information is transferred to a single or integrated database, then the design, review and control of information systems may be claimed to be the province of professionals outside the accounting sphere. In order to retain their present position with respect to information systems in organizations, accountants will need to be, or to become, knowledgeable about the opportunities that information technology presents...83

The report concluded that the Australian Society of Accountants had a responsibility to assist its members to attain the skills "necessary to maintain their position in this new environment."84 In the second article Bentley discusses the need for properly designed management information systems.85 He accepts that information is a vital resource:

but improving the quality and quantity will create value only if it is used effectively. Just like any other resource, information can be wasted.

81 Ibid.
83 Ibid.
84 Ibid.
Every organisation requires information in order to survive and grow, particularly when the organisation is concerned with making a profit in a competitive environment. ...

In fact, information is becoming one of the most vital resources available to the modern organization. Bentyle concludes that it is essential for accountants to become involved in management information systems design and development in order "to remain at the top of the ladder as the providers of management information." This would seem to offer a challenge to librarians who traditionally think of themselves as the chief providers of information.

3.2 THE ACCOUNTANT AND THE FIRM'S LIBRARY

In 1974 details were published of a small survey of seven libraries in England in the larger accountancy firms. In almost all firms the libraries had just grown without any planning, until someone in the firm, usually a secretary, was asked to take control. Kingston found that the librarians:

are very conscious of their position in the firm and of the attitude of accountants to both library and librarians. Most are struggling to have the library's value as information centre of the firm recognised, and struggling too against the tendency to bypass it altogether. ... The accountant is surprised to find that the librarian can help with problems thought of as being professional and hence outside her sphere.

During the survey Kingston spoke to:

four accountants functioning as librarians; they were unhesitating in claiming that a high degree of subject knowledge was of infinitely more use than library qualifications.

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86 Ibid., p. 138.
88 Ibid.
89 Ibid.
The librarians agreed that the younger members of firms were not great library users, while the partners often used the library through their secretaries. The most frequent users were likely to be "managers" who were identified as qualified accountants "with some administrative as well as professional duties."\(^90\)

In spite of librarian to staff ratios varying from 1:114 to 1:480, five of the seven accountancy librarians "expected and hoped for an increased volume of information work in the future."\(^91\)

3.3 USE OF ACCOUNTING SOCIETY LIBRARIES

The libraries of professional accounting bodies seem to receive little publicity in their professional journals, except for lists of new publications received being published.

In 1983, Mary Cassidy, Librarian of the South African Institute of Chartered Accountants, summarised the results of a library user survey.\(^92\) The respondents confirmed her view that "the Institute Library is not highly rated as a source" of information. Only 13.3 percent of the questionnaires were returned, and only five percent of respondents used the library frequently. Reasons given for not using the library were varied, and included "no perceived need," "a lack of knowledge of the facilities offered," "didn't know [the library] existed," "live too far away," and "Firm has own library." Respondents indicated great support (78 percent) for the introduction of a current awareness service in the journal.

\(^90\) Ibid.

\(^91\) Ibid.

In 1982, a short article headed *Inside the Institute* listed the services provided by the library of the Australian Institute of Chartered Accountants.\(^93\) The Librarian, Annette Murphy, was reported as saying that many members did not realise how "in depth" the information available was. She believed that people did not ask the library for what they wanted because they thought that the library would not have it.

In 1982, all members of the New Zealand Society of Accountants living in Wellington and the Wairarapa were sent a questionnaire to try to ascertain their use of the Society Library. In a brief summary of the questionnaire results\(^94\) it was reported that over 500 members replied. Many of them had forgotten that the library existed and were unaware of the postal borrowing service available. Those who did use the library were "well satisfied" with the service provided.

3.4 CONCLUSIONS

Because there is a paucity of published material on information and the accountant, there is little to tell us what needs accountants have in this area. It would seem that they recognise a need for management information systems concerned with financial and economic management of business, but that they have yet to realise the total value of information. It also seems that business people themselves encourage accountants to provide instant information to solve their problems, rather than allow time for research. This is because they want their answers immediately, and so tend to consult the nearest available source—often an accountant. The little research done in this area suggests that an information gap exists with accountants not having the


background to provide their clients with full information, and librarians not providing sufficiently localised services with fast information supply.

In addition, the information available on three accounting society libraries suggests that practitioners are generally unaware of the services offered, so that the librarians do not have a high profile within the profession.

In Australia and New Zealand there are some signs that librarianship is gaining a little recognition in the accountancy profession. The growing number of professional librarians being employed by firms of chartered accountants will help to lift the image of librarianship. The majority of accountants however, are unaware of the vast resource of information available to them through librarians and their libraries.
Chapter 4

RESULTS - INFORMATION AND THE ACCOUNTANT

Accountants undertake widely diversified activities, and as the literature review discussed in Section 3.1 of Chapter 3, they are regarded as a prime source of help for many business people, particularly those involved in running a small business. However, little research has been done on the need of the accountant for information, and this survey sought to establish some facts about that need.

4.1 IN-HOUSE INFORMATION

The survey began by asking accountants about the quantities of printed material coming across their desks each day. More than half of the respondents thought that the amount was about right, one third thought that it was too much, while 10 percent were overwhelmed by it. Only one respondent felt that s/he saw too little information.

If they found something of interest in the printed material, 40 percent of the accountants would read it and either keep the original or a photocopy for future reference. Twenty-eight percent would read the article and discard it, 17 percent would circulate it to other staff, and 14 percent would keep the article without reading it at the time.

Several people commented on the difficulty they often had to both recall and retrieve specific articles that may or may not have been kept. One was honest enough to say "I copy interesting data, file it away, and lose it." The problem could be common.
Accountants chose many different ways to store material of interest, and most had more than one place to put it. The most popular place for storing information was in a library (38.6 percent), closely followed by the use of a bookcase in the respondent's room (35.09 percent). Thirty-one percent of accountants claimed to make a mental note only of information of interest, and this seemed fairly accurate in view of the 28 percent, in the previous question, who said that they would read an article of interest and then discard it. The filing system was used by 28 percent for information storage, while 12 percent had special filing cabinets for information. Ten percent stored the material in someone else's room, while another 10 percent had other arrangements - folders on their desks, a store room, and the reception area were the most common places.

Generally accountants did not keep large amounts of information. Fifteen accountants (26.32 percent) had no idea at all on how much information was stored in their offices. Almost 70 percent of the remainder had 15 metres or less of storage space, and 23.81 percent of that number had less than one metre. The remaining 31 percent had between 20 and 65 metres of shelving, with almost 12 percent having 30 metres.

Only four respondents had no idea of what their firm spent on information. Several others could give approximations only, which seemed surprising for accountants. It was found that only minimal detail of expenditure could be included in the results, because anonymity had been promised to respondents, and several of the firms had distinct numbers of employees which meant that they could be easily identified. In addition, seven firms had more than one respondent in them, which could introduce bias into the results.
As was to be expected, the bigger firms generally spent more than the smaller ones. Eight of the larger firms spent between $8000 - $15000, while the rest spent between $80 and $3000. Of the 15 sole practitioners who took part in the survey, ten spent less than $500 but five spent between $1000 and $2500. One clear fact that emerged was that a firm had to be employing 40 or more people before it spent at least $8000 on information.

4.2 SOURCES OF USEFUL INFORMATION

The questionnaire asked accountants to identify the sources of useful information which came into their offices. Journals that the firm subscribed to were the most useful source given by 87.72 percent of respondents. Journals and/or newsletters from their professional organisation were the next most useful (71.43 percent), while newspapers were also important to half the respondents (50.88 percent).

While the printed word still rated as most important, conversations played an important part in the exchange of information. Conversations with others at seminars and meetings provided useful information for 36.84 percent of respondents, while conversations with others in a similar business (often over lunch) did the same for 31.58 percent (See Table 1).

4.3 THE NEED FOR INFORMATION - GENERAL TOPICS

Government laws, statutes and regulations - The information that was needed most by the accounting practitioners (94.74 percent) was that found in government laws, statutes and regulations. Many accountants indicated that it was taxation law that was most frequently consulted.
Table 1

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Responses</th>
<th>Percentage*</th>
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</thead>
<tbody>
<tr>
<td>Journals/newsletters from your professional organisation</td>
<td>40</td>
<td>71.43</td>
</tr>
<tr>
<td>Journals that your company or organisation subscribes to</td>
<td>50</td>
<td>87.72</td>
</tr>
<tr>
<td>Pamphlets, brochures or circulars from trade or employers' federations</td>
<td>6</td>
<td>10.53</td>
</tr>
<tr>
<td>Trade magazines</td>
<td>4</td>
<td>7.02</td>
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<tr>
<td>Advertising brochures</td>
<td>4</td>
<td>7.02</td>
</tr>
<tr>
<td>Newspapers</td>
<td>29</td>
<td>50.88</td>
</tr>
<tr>
<td>Conversations with others in similar business</td>
<td>18</td>
<td>31.58</td>
</tr>
<tr>
<td>Conversations with others in similar business at seminars, meetings, etc.</td>
<td>21</td>
<td>36.84</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give more than one source of useful information.

Base: 57 responses
This was an expected result, and mirrors the public perception of the role of an accountant.95

Small business - With professional ethics, small business was the second most important information need that accountants had (75.44 percent). As discussed in the Literature Review (Section 3.1 of Chapter 3), those running a small business prefer to seek their information on a face to face basis from a professional, so that it was no surprise to find that New Zealand small business managers often consult an accountant, thereby creating a need for that accountant to find information to meet their request.

Professional ethics - In reviewing the accountancy profession and scenarios for its development in the report Horizon 2000 the investigating committee said that it did not believe that New Zealand Society of Accountants' members were sufficiently well informed about the content of the Code of Ethics.96 As accountants in the Wellington area have a high need to find information on professional ethics (75.44 percent), this would seem to be so.

Automation and new technology - Information on computerisation, systems for automation, and technology up-dates were another frequently required source of information for respondents (73.69 percent). Several accountants commented that they found it hard to keep up with changes in this area, but it was clear that more time would need to be devoted to it, as automation was here to stay.

95 1. New Zealand Society of Accountants, Horizon 2000 - And Beyond, p. 18.

96 Ibid., p. 111.
Statistics - Many accountants need statistical information (70.17 percent). The main needs were in the areas of inflation, general economic trends, and the cost of living. Several accountants also needed information on business surveys, retail turnover, and industry performance. The general complaint that respondents had about statistics was that they were hard to access, and insufficiently detailed for their needs.

Industrial awards - Up to date information on awards and wages was another necessary source of information for accountants. Some 61.41 percent needed this information on a regular basis, and often sought it from the Labour Department.

Overseas developments - About 52 percent of accountants needed information on overseas developments in their profession, 35 percent on a frequent basis. The reason for needing the information seemed to be two-fold - either the accountant had clients with overseas interests, or s/he had a particular interest in keeping up to date, because of an expressed need to be "one jump ahead" of the rest of the profession.

Staff Training and Managing Employees - Staff training information was frequently sought by 42 percent of respondents, while only 28 percent frequently needed information on managing their employees. It could have been expected that these two results would have been much the same, but none of the 14 sole practitioners had a need for information on managing employees.

Records Management - Only 24 percent of accountants needed information frequently on records management, while nearly 16 percent needed it sometimes. Many of the accountants surveyed expressed their lack of knowledge in this area, and left the problem to their staff to solve. (See Table 2 for full results).
<table>
<thead>
<tr>
<th>Topic</th>
<th>Frequently Needed</th>
<th>Sometimes Needed</th>
<th>Total Need</th>
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<tbody>
<tr>
<td>Professional ethics</td>
<td>22.81</td>
<td>52.63</td>
<td>75.44</td>
</tr>
<tr>
<td>Financial management</td>
<td>19.30</td>
<td>1.75</td>
<td>21.05</td>
</tr>
<tr>
<td>Small business</td>
<td>70.18</td>
<td>5.26</td>
<td>75.44</td>
</tr>
<tr>
<td>Statistics</td>
<td>29.82</td>
<td>40.35</td>
<td>70.17</td>
</tr>
<tr>
<td>Overseas developments in your profession</td>
<td>35.09</td>
<td>17.54</td>
<td>52.63</td>
</tr>
<tr>
<td>Government laws, statutes, regulations</td>
<td>87.72</td>
<td>7.02</td>
<td>94.74</td>
</tr>
<tr>
<td>Local body by-laws, regulations</td>
<td>12.28</td>
<td>5.26</td>
<td>17.54</td>
</tr>
<tr>
<td>Standards</td>
<td>8.77</td>
<td>3.51</td>
<td>12.28</td>
</tr>
<tr>
<td>Managing employees</td>
<td>28.07</td>
<td>8.77</td>
<td>36.84</td>
</tr>
<tr>
<td>Staff training</td>
<td>42.11</td>
<td>7.02</td>
<td>49.13</td>
</tr>
<tr>
<td>Industrial awards</td>
<td>47.37</td>
<td>14.04</td>
<td>61.41</td>
</tr>
<tr>
<td>Effective advertising/marketing</td>
<td>12.28</td>
<td>22.81</td>
<td>35.09</td>
</tr>
<tr>
<td>Prevention of work related accidents</td>
<td>3.51</td>
<td>1.75</td>
<td>5.26</td>
</tr>
<tr>
<td>Shop/office fittings and equipment</td>
<td>12.28</td>
<td>12.28</td>
<td>24.56</td>
</tr>
<tr>
<td>Shop/office security</td>
<td>15.79</td>
<td>17.54</td>
<td>33.33</td>
</tr>
<tr>
<td>Records management</td>
<td>24.56</td>
<td>15.79</td>
<td>40.35</td>
</tr>
<tr>
<td>Automation and new technology</td>
<td>59.65</td>
<td>14.04</td>
<td>73.69</td>
</tr>
<tr>
<td>No advice or information needed</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>7.02</td>
<td></td>
<td>7.02</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give all their information needs.

Base : 57 responses
When asked about their need for information on specific accountancy topics, the expressed needs were not as great as expected. The information needed most was that on taxation (59.65 percent) which quantified the indication given by respondents under the general need for laws and statutes, that taxation was the law most frequently consulted. Information on auditing was a need of 38.6 percent of survey respondents, but all other options scored less than 13 percent (See Table 3).

Under the "Other, please specify" option more than 20 subjects were noted. Information on share prices and dividends, and general information on business were each cited by six people (10.53 percent), but most of the topics nominated were needed by only one or two people.

In summary then, the accountants in the survey needed to refer to government laws and statutes, particularly taxation law, more than any other topic. Small business, professional ethics, automation and new technology, statistics, industrial awards and overseas developments in the profession were all areas where significant amounts of information were needed. Most of these topics are generally needed by business people, and it was surprising to find that taxation and auditing were the only two "profession only" topics where accountants had a noteworthy information need.
### Table 3

**PROFESSION SPECIFIC NEEDS FOR INFORMATION: ACCOUNTANTS**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability of the public sector</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Auditing</td>
<td>22</td>
<td>38.60</td>
</tr>
<tr>
<td>Computing systems</td>
<td>5</td>
<td>8.77</td>
</tr>
<tr>
<td>Estate planning</td>
<td>7</td>
<td>12.28</td>
</tr>
<tr>
<td>Export possibilities</td>
<td>1</td>
<td>1.75</td>
</tr>
<tr>
<td>Financial reporting/accounting</td>
<td>6</td>
<td>10.53</td>
</tr>
<tr>
<td>Inflation accounting</td>
<td>2</td>
<td>3.51</td>
</tr>
<tr>
<td>Taxation</td>
<td>34</td>
<td>59.65</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>35</td>
<td>61.40</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give all their information needs.

Base: 57 responses

### Table 4

**INFORMATION SEEKING OUTSIDE THE BUSINESS: ACCOUNTANTS**

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the past day</td>
<td>5</td>
<td>8.77</td>
</tr>
<tr>
<td>Within the past week</td>
<td>18</td>
<td>31.58</td>
</tr>
<tr>
<td>Within the past fortnight</td>
<td>5</td>
<td>8.77</td>
</tr>
<tr>
<td>Within the past month</td>
<td>10</td>
<td>17.54</td>
</tr>
<tr>
<td>Within the past year</td>
<td>13</td>
<td>22.81</td>
</tr>
<tr>
<td>Not for more than a year</td>
<td>6</td>
<td>10.53</td>
</tr>
<tr>
<td>Totals</td>
<td>57</td>
<td>100.00</td>
</tr>
</tbody>
</table>
4.5 INFORMATION SEEKING PATTERNS

a) In-house

Over 78 percent of accountants needed access to information at least once per day, the majority of them (61.4 percent), needing information several times each day. Most accountants did their own searching for information (71.93 percent), although 26.32 percent sometimes searched themselves and sometimes asked someone else to search for them.

In the professions, it is a recognised characteristic that partners and other senior members of staff ask more junior members to undertake information research for them. It was not expected that such a large percentage of accountants would undertake their own searching. While sole practitioners cannot delegate their work, it seems that other practitioners do not. This suggests that information on the most commonly required topics (taxation, professional ethics, small business and auditing) is almost certain held in the rooms of the people who undertake that work. In addition, it is possible to conclude that senior members of staff take responsibility for these main topics, and do not delegate them to more junior staff.

b) Outside Sources

Having seen how information was gathered in-house, what happened when respondents had to go outside the firm for information? Firstly respondents were asked when they had last sought information from an outside source. Forty percent had done so within the last week, with over 8 percent having done so in the last day (See Table 4).
With combined percentages it seems fair to conclude that the majority of accountants (two-thirds) seek information outside their firm at least once a month.

The preferred method for information seeking was clearly the telephone. Over 77 percent of accountants would seek information in this way, but more than 50 percent would make a personal visit to someone or to a place where they believed that the information could be found (See Table 5). However, although the preferred way of seeking information outside was by way of immediate telephone contact, almost the same number of accountants (76.79 percent) indicated that their preferred way of receiving information was in written form (See Table 6). This suggests that accountants either telephone or visit a likely source of information, seeking written confirmation of the answer to their problem. Accountants from smaller firms (that is, those with a total staff of less than 30) seek information a little more often than those who work in bigger firms, while accountants aged 55 and over are those who do not often seek information outside their business.
### Table 5

INFORMATION SEEKING FROM AN OUTSIDE SOURCE: ACCOUNTANTS

<table>
<thead>
<tr>
<th>Preferred method of seeking</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write</td>
<td>14</td>
<td>24.56</td>
</tr>
<tr>
<td>Telephone</td>
<td>44</td>
<td>77.19</td>
</tr>
<tr>
<td>Make a personal visit</td>
<td>29</td>
<td>50.88</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>3.51</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to state all their methods of information seeking.

Base: 57 responses

### Table 6

PREFERRED RECEIPT METHOD FOR INFORMATION FROM OUTSIDE SOURCES

<table>
<thead>
<tr>
<th>Preferred method of receipt</th>
<th>First choice</th>
<th>Second choice</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>In written form</td>
<td>76.79</td>
<td>3.57</td>
<td>80.36</td>
</tr>
<tr>
<td>By telephone</td>
<td>21.43</td>
<td>25.00</td>
<td>46.43</td>
</tr>
<tr>
<td>By a visit from someone</td>
<td>1.79</td>
<td>1.79</td>
<td>3.58</td>
</tr>
<tr>
<td>By a visit to someone</td>
<td>7.14</td>
<td>1.79</td>
<td>8.93</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to indicate both first and second choices.

Base: 57 responses
4.6 INFORMATION SEEKING EXAMPLES

The accountants were asked to recall the most recent time that they needed information and give the details of their search. The results were collated manually, and the topics put into broad subject groups. As was to be expected more accountants (35.09 percent) were looking for information on taxation than on any other topic. There was then a big drop down to the next topic - information on stocks and shares was needed by 10.53 respondents (See Table 7). Although the question did not ask where the accountants went to find their information, the sources were given voluntarily by the first few respondents. In subsequent interviews this information was deliberately collected. The results were of great interest. Although only 40 percent of accountants had said that they had sought information from sources outside their firm in the last week (See Table 4), 71.93 percent had sought it from outside sources in their most recent search. Only 26.32 percent of respondents had found the answer to their most recent information need in-house. This suggests that accountants may in fact, seek information from outside sources more frequently than the results show in Table 4, and that their in-house information is inadequate for many of their needs. Alternatively, it could be that accountants find outside searches for information more memorable than those done in-house.

Almost 40 percent of the accountants' most recent queries had taken less than 15 minutes to answer, and another 20 percent took under half an hour. Nearly 11 percent however, took between two and three hours to research, while in seven percent of queries, research took more than eight hours, and sometimes two or three weeks, before sufficient information was collected to enable the accountant to come to a decision.
### Table 7

**MOST RECENT INFORMATION NEED AND SOURCE OF SUPPLY: ACCOUNTANTS**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Responses</th>
<th>Percentage</th>
<th>In-house Source</th>
<th>Outside Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxation</td>
<td>20</td>
<td>35.09</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Stocks and shares</td>
<td>6</td>
<td>10.53</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Company information</td>
<td>4</td>
<td>7.02</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Mortgage finance</td>
<td>2</td>
<td>3.51</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Computer information</td>
<td>4</td>
<td>7.02</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Statistics</td>
<td>2</td>
<td>3.51</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Accounting practice</td>
<td>5</td>
<td>8.77</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Contracts</td>
<td>1</td>
<td>1.75</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Wages</td>
<td>2</td>
<td>3.51</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Exchange rates</td>
<td>2</td>
<td>3.51</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Receivership</td>
<td>2</td>
<td>3.51</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>10.52</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Could not remember</td>
<td>1</td>
<td>1.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>57</td>
<td>100.00</td>
<td>15</td>
<td>41</td>
</tr>
</tbody>
</table>

(26.32 %) (71.93 %)
on the matter in hand. Almost 93 percent of respondents reported that the examples given were typical of their need for information.

With nearly 48 percent of queries the information was needed immediately, although in another 20 percent, the information was only needed within a week. In a further 19 percent of queries the information was needed within a month, or within a longer but definite time span.

Almost 93 percent of the queries had been successfully answered. Four queries (7.02 percent) were not solved. Two taxation questions could not be answered successfully because there appeared to be no test cases of the particular circumstances reported in the legal literature. However, neither accountant had instigated a search for unreported cases. The other two unsuccessful searches concerned share valuations ("I could find little to help me" said the respondent), and internal auditing ("The New Zealand Society of Accountants library did not have a recent text, so I was forced to apply my own solution without the confidence I needed from a similar example.")

Just on 84 percent of respondents admitted finding relevant information on a problem after it had been dealt with. This was a frequent occurrence for 26.79 percent of respondents, and happened sometimes in 57.14 percent of cases. Only nine respondents (16.07 percent) reported that they had never had this experience. Thirty-three respondents (68.75 percent) admitted that the information that was subsequently found was not recently published, suggesting that these accountants need improved access to, and more formal organisation of their existing sources of information. In 15 cases (31.25 percent) the relevant information had only recently been published, which suggests that the information required may not have been available in published form in
New Zealand at the time it was required. Database access and/or the supply of some overseas journals by airmail might have helped to supply the needed information at the right time.

4.7 SOURCES OF INFORMATION

Accountants were asked to name the sources they contacted in their search for information. The most frequently used source was not the firm's own library (which ranked second with 82.46 percent) but government departments. Almost 88 percent of respondents had used government departments and/or quangos for information seeking. The third most popular source for information was "someone in a profession similar to your own" (75.44 percent). This often was a partner or in-house staff member. The New Zealand Society of Accountants library seemed to have a good measure of support, (66.67 percent) and was followed equally by suppliers and consultants (54.39 percent). Respondents noted that the suppliers they used most frequently were bookshops and the Government Printer, while consultant advice was most often sought from lawyers, engineers, actuaries and taxation consultants. These results (see Table 8) confirm that accountants are most likely to require information in written form, although they may request it by telephone (See Tables 5 and 6).

A respondent from one firm (an international company) claimed that his firm was self-sufficient in information. Although he named five sources of information that he had personally contacted, he also claimed that he need not have gone there because someone in his firm would have known the information. He said: "We are arrogant and proud enough to believe that we have at least one staff member in New Zealand who would know anything we need to know. Otherwise, our international firm would
### Table 8

**SOURCES OF INFORMATION: ACCOUNTANTS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your own firm's library</td>
<td>47</td>
<td>82.46</td>
</tr>
<tr>
<td>The library of your professional organisation</td>
<td>38</td>
<td>66.67</td>
</tr>
<tr>
<td>A government department or quango</td>
<td>50</td>
<td>87.72</td>
</tr>
<tr>
<td>Your local council</td>
<td>18</td>
<td>31.58</td>
</tr>
<tr>
<td>The Standards Association</td>
<td>7</td>
<td>12.28</td>
</tr>
<tr>
<td>The National Library</td>
<td>2</td>
<td>3.51</td>
</tr>
<tr>
<td>The Scientific and Technical Information Service (SATIS)</td>
<td>2</td>
<td>3.51</td>
</tr>
<tr>
<td>Your local public library</td>
<td>21</td>
<td>36.84</td>
</tr>
<tr>
<td>Someone in a profession similar to your own</td>
<td>43</td>
<td>75.44</td>
</tr>
<tr>
<td>A supplier</td>
<td>31</td>
<td>54.39</td>
</tr>
<tr>
<td>Someone in a university</td>
<td>13</td>
<td>22.81</td>
</tr>
<tr>
<td>Someone in a technical institute</td>
<td>4</td>
<td>7.02</td>
</tr>
<tr>
<td>A consultant in private practice</td>
<td>31</td>
<td>54.39</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>16</td>
<td>28.07</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to indicate all sources of information used.

Base: 57 responses
have the expertise somewhere." Unfortunately, this respondent was from one of the firms where I was permitted to interview only one staff member, so there was no way of verifying this statement.

4.8 USE AND NON-USE OF LIBRARIES

Having established the sources of information that respondents used, we wanted to find out why some people did not use libraries. In addition, were accountants aware of all the services offered by the library - interloan and database searching, for example?

Accountants claimed that they did not use libraries for two main reasons. Either they had all the information they needed (76.19 percent), or they got it from other sources (54.76 percent). Less than ten percent said that they found the library inconveniently located, or that they thought that library holdings would not be up to date enough. Twenty respondents (54.05 percent) had got the information they needed when they went to a library. Eleven (29.73 percent) had got what they were looking for only sometimes, while six (16.22 percent) had not got what they wanted.

Only seven accountants had used inter-library loan services (12.96 percent), and only two of them did so frequently (3.70 percent). Most did not know that the service was available, and that they could have access to it. Similar results were reported for on-line computer database searching. Only two accountants (3.70 percent) had commissioned database searches, and most were unaware of such a service, and how it could help them.

When asked whether they had any unsolved problems in their business, 13 people (24.07 percent) could give specific examples. They ranged from
taxation problems to personnel selection and up to date statistics. Several respondents commented that they often did not have all the information they would like to have when they made a decision, but because of a lack of time to search any further, they often had to compromise. Three accountants commented that the files that went into the "too hard basket" eventually had to come out and be solved - compromise decisions were again suggested. Another said that his problem was "knowing where to start" when a new problem was being tackled. He also said "The information base is with people."

These results suggest that librarians have a substantial public relations role to play in letting accountants know what information is held in their collections, as well as to educate them in the services that are offered beyond basic lending. It also suggests that one of the New Zealand Society of Accountants Continuing Education courses could usefully be devoted to information sources and searching. It could even be considered necessary to include training in information searching as part of a basic accountancy degree - law students at Victoria University of Wellington have such a course in their second year studies.

4.9 INFORMATION SUPPLY IN AN IDEAL WORLD

Respondents were asked to nominate the organisations to which an information centre for accountants should be attached, if one were set up. Little interest was generated by this question. Some 44 percent of respondents nominated the New Zealand Society of Accountants for this role, but many respondents were unable to answer it. One respondent was strongly against such a collective information bank being established. He said that his firm would not want to share any information, as it was always trying to be one jump ahead of its competitors, both in
information and its methodological application. He also expressed the opinion that librarians were in competition with accountants. "You give information away for nothing. We endeavour to get that information, re-package it, and sell it to our clients," he said.

There was also not much interest in listing priorities for ways in which information might be made available. Twenty-five percent of respondents favoured being able to make a telephone call to an information centre, while 16 percent preferred a service that notified them of printed information that was available on request.

The lack of interest in these questions generally, suggests that accountants are reasonably satisfied with their existing information sources. However, as Table 7 showed, they seem to consult outside sources for information more often than they realise, suggesting that their in-house resources need improvement. Alternatively, one large information centre which handled all requests for all firms would release many hours of senior staff time to concentrate on accountancy rather than information searching.

4.10 PAYMENT FOR INFORMATION SERVICES

While people may be willing to talk about information services and specify what they would like to have, they may not be willing to contribute towards their cost. It therefore seemed reasonable to ask respondents if they were prepared to pay for such services. Since this survey was in the planning stages, the user-pays principle has been accepted as part of government policy, so that this question has become even more relevant that was initially envisaged.
The most popular way of paying for information was on a fee basis, with the payments being tax deductible. This was preferred by 35.19 percent of respondents. Almost 26 percent favoured paying an annual subscription. However, over one third of the respondents were not willing to pay at all for such a service. Nineteen of them (35.19 percent) said that it was not needed. Two more believed that this was a service that the New Zealand Society of Accountants should be offering. Two respondents commented that they did not want a universal library and information service outside, because they wanted their firms to provide a library with a professional librarian in-house.

Generally it was the older accountants (55 years and over) who were not willing to pay for information, though a few between the ages of 30 and 40 agreed with them. The younger (30 and under) and middle age-groups (30 - 54) seemed to think that it was inevitable that the user would have to pay for information.

Respondents with more than ten people working in their firms were asked if they thought that employment of a professional librarian in-house would help them in their search for information. Thirty-six respondents were eligible to answer this question, but only ten of them (27.78 percent) thought that a librarian could help them. The reasons given for not employing a librarian were:

"Could not justify on cost grounds" (10 respondents);  
"A librarian would not have enough to do" (7 respondents);  
"We have research type problems not suitable for a librarian" (3 respondents);  
"We could find information faster than a librarian" (1 respondent);
"To be of use a librarian would need an accounting or a law degree" (1 respondent); and

"We employ intelligent graduates who know where to go" (1 respondent).

One accountant suggested that his firm might employ a librarian if it went into information brokering, while another thought that it would be helpful if those staff who tended not to be fully occupied at various times of the year could do "a bit of training in information work."

Again, the need is evident here for librarians to undertake a public relations exercise to explain to members of the accountancy profession that librarians are professionals, often with degrees and post-graduate diplomas (i.e. more highly educated than accountants). The second survey of this thesis shows that time and money savings are tangible benefits when a librarian is employed, and that reference and research work undertaken by a librarian can save valuable time for busy executives.

4.11 PERSONAL PROFILES

Of the 57 accountants in the survey, 15 (26.32 percent) were sole practitioners while the other 42 (73.68 percent) all worked in firms run by partnerships. The numbers of people employed in accounting firms varied greatly. Ten firms had one person only working in them, while one firm had 140. Altogether, thirty-two firms employed 25 people or less, and 25 firms employed between 35 and 100 people.

Nine of the respondents were aged over 60, three of them being aged between 71 and 75. The rest of them divided fairly evenly into two groups - those under 40 (41.07 percent), and those between 41 and 60 (42.85 percent). Generally age had no significant impact on the answers to the questionnaire.
The largest number of respondents were either partners or sole proprietors of their firms (73.68 percent). Two were associate partners (3.51 percent), while 13 (22.81 percent) were staff members. All had at least six years professional experience, and 15 of them had worked for more than 30 years. University degrees were held by 33 respondents (57.89 percent), and two respondents held two degree qualifications, though neither were at a higher degree level. All respondents were of course, members of the New Zealand Society of Accountants.

The expertise of librarians is slowly being recognised by many of the other professions. It seems that librarians will need to demonstrate their skills and prove their expertise in a more public way before they will be accepted by accountants as a necessary support in the commercial world.
Chapter 5

LITERATURE REVIEW - CONSULTING ENGINEERS

A consulting engineer in New Zealand is defined by the Institution of Professional Engineers as:

a Professional Engineer in private practice or any Professional Engineer acting in the particular instance independently of any organisation with which he may normally be associated in a professional capacity. 97

The Association of Consulting Engineers gives us further information by saying that a consulting engineer:

maintains his own engineering office either alone or in association with other engineers or design professionals. He employs the necessary staff to assist in carrying out the services which he provides. His organisation may be that of a sole practitioner, a partnership or a company.98

The consulting engineer "must carry out his practice on a highly ethical professional basis", and be:

qualified by training at a recognised University or equivalent and by corporate membership of the Institution of Professional Engineers New Zealand. The Association admits to membership only those Consulting Engineers who hold approved professional qualifications and the necessary training and experience to practise consulting engineering as an ACENZ member.99


98 Association of Consulting Engineers New Zealand, List of Members 1983, p. 3.

99 Ibid.
5.1 LIBRARIES FOR CONSULTING ENGINEERS

On the surface, New Zealand seems to be well served by libraries with engineering collections. Thirty-six of them are listed in the 1984 Directory of Special Libraries and Information Centres. However, only four consulting engineering firms are listed as having libraries, although two of them have libraries in both Auckland and Wellington. Two firms employ professionally qualified librarians as does another unlisted firm, which participated in the second survey of this thesis. It is known from the results of that second survey that consulting engineers invariably have a collection of publications in their office to assist them with day-to-day decisions. They are however, not well informed about other collections of engineering publications available to them in the universities, government departments, technical institutes, local body organisations and business firms.

5.2 THE CONSULTING ENGINEER’S NEED FOR INFORMATION

By and large, as Brodman has pointed out, a practitioner:

whether he is practicing business administration, law, medicine, engineering, theology, or any of the other disciplines that translate theories into actual practice in the community, hardly ever thinks of the public library as the source of data for his administrative and operating decisions. . . . the practitioner expects to obtain his help from nonpublic libraries, especially from academic, special, and personal collections.101

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100 P. Szentirmay and T.C. Szentirmay, DISLIC, pp. 1-71.

Brodman points out that engineers expect to provide information for themselves as part of the tradition of their profession. When looking for information the practitioner:

is fundamentally interested in solving a particular problem with which he is faced in a particular real-life setting, under particular conditions, and usually he is faced with the necessity of solving it within a rather tight time-limit.

Disch agrees with that point of view. In his survey on users' attitudes to information services he found that the "practical engineer" is interested in:

the solution to his present and immediate problem. He does not have the time nor the training to make use of the traditional information sources or channels: abstract journals, primary literature, on-line services, R&D reports, library services.

Instead, he goes to a conveniently located and familiar source with his problem: a supplier, an in-house colleague or file, or he consults the old, familiar textbook where he knows on what page he can find what he needs.

His information requirements are thus dictated more by the need for information to enable him to make an immediate decision than by the need for thoroughly reliable and authoritatively approved information.

An article by Levy would have us believe that the "technical information activities and needs of the engineers at all locations" within his company were "essentially the same." This survey of 450 engineers was a stratified random sample from locations thought to be representative of the company. Hall tells us that:

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102 Ibid.
103 Ibid., p. 153.
When an individual seeks technical information, he does so for one of two basic reasons: current awareness or problem-solving. ... When just trying to stay abreast of developments in technology, the information search process is more relaxed than when searching for a potential solution to a technical problem, which involves different, and more demanding, search processes.\textsuperscript{106} 

He reports that there is a difference in information flow among "scientists and engineers in industry" and those engaged in "basic research." This emphasis occurs because those in industry are not under pressure to publish - rather they are "oriented towards products or processes, not theory."

Wood and Hamilton solved this dilemma. They concluded:

In general, it has been found that the type of activity of the engineer is the critical factor in his pattern of information needs and use, and that there is relatively little difference in the information requirements of those employed in different industries.\textsuperscript{107}

Allen agreed, but had another point to make:

The selection of technical information sources by the engineers and scientists is found to be dependent upon the function to be performed and related to the particular time phase in which the project happens to be.\textsuperscript{108}

Regrettably, consulting engineers do not seem to have been a separate subject of study. However, the information flow involving engineers in industry has been studied several times, and relevant results are summarised in this literature review because of possible similarities.


5.3 SOURCES OF INFORMATION

A search of the literature from 1970 onwards inevitably leads back to the more important research done before that time. Hanson's paper attempted to summarise research done on users' needs and compare it with a recent Aslib survey. Using the word 'scientist' to include engineers and technologists, Hanson said:

We all know from experience that some scientists prefer to consult people rather than documents. The extent to which they approach people first, or by-pass libraries altogether, has been estimated by various observers, and figures between 25 per cent and 50 per cent have been reported. ... individual figures are not in themselves important, but they do indicate that, for whatever reason, a substantial proportion of the people who need information do not seek it first, or even at all, in libraries, although the specific function of libraries is to provide information. 109

In the Aslib survey Hanson found that scientists (again using the term in the wide sense described above) used libraries extensively for obtaining specific documents, for some reference purposes, and for some elementary information searches. Combined, these were about half of the total need.

Hanson continued:

When his needs are more complex, more difficult to define, and of greater significance to him he is less inclined to consider the library an important source of help, and more inclined to seek information elsewhere. ...

To put it crudely: library services are accepted as a means of meeting simple needs, which are many. They are not accepted as an obvious source of help with difficult problems. 110

Wood and Hamilton surveyed the information requirements of mechanical engineers in 1966. 111 Their sampling frame was the membership list of

109 C.W. Hanson, "Research on Users' Needs: Where Is It Getting Us?" Aslib Proceedings; 16 (February 1964): 64-78.
110 Ibid., pp. 72-73.
111 Wood and Hamilton, p. 4.
the Institution of Mechanical Engineers, and a postal questionnaire was sent to all members, associate members and graduate members. 2702 questionnaires (54 percent) were returned.

This survey investigated two different aspects of the information problem. One is the requirements - as they see it - of mechanical engineers and their use of the available sources. The other is the facilities available to them in terms of library services and publications. 112

In order to establish need, respondents were asked when they last required exhaustive scientific or technical information on a topic, everyday information, and information outside the field of mechanical engineering. Within the previous week, 18.6 percent had needed exhaustive information, 68.8 percent had needed everyday information, and 27.5 percent needed information outside the mechanical engineering field. 113

The sources of information that were most used were:

- scientific, technical and trade journals, textbooks and handbooks. On the other hand little use is made of patents, report literature and conference proceedings. 114

Yet, Wood and Hamilton pointed out that only 12 percent of their respondents saw more than ten journals regularly, while 37 percent saw less than five. It was also established that relatively little use was made of abstract journals and indexes. The reasons suggested for this lack of use were:

- firstly to the fact that few libraries possess good collections of abstract journals and, secondly, to the fact that engineers are largely unaware of the potential value of this type of literature. 115

112 Ibid.
114 Ibid., p. 4.
115 Ibid., p. 10.
Where non-documentary sources of information are concerned, the survey found:

mechanical engineers rely heavily on personal contacts, and the technical information services of their own organisations to supply answers to scientific and technical questions. Other sources of information are used comparatively little.\(^\text{116}\)

Slater comments on these findings saying:

engineers have above average problems with information - problems that involve genuine lack of sources and lack of knowledge of, or ability to use, sources that do exist.\(^\text{117}\)

Carlson suggests that the problems that engineers have with:

the patterns of information and data flow are set for the engineer during his formal education, and they do not change very much thereafter. ... the really important changes in data handling come about as the result of strong management motivation toward improving the effectiveness of the engineering organization served by the data system.\(^\text{118}\)

Like Brodman and Disch, Carlson believes that engineers want easy, fast, and cheap access to accurate information to solve their problems. He said:

An engineer gets most of the facts he needs out of his own head or out of the files in his work area. About a third of the facts he obtains from other people directly without the movement of any documentation. In the small remaining fraction of instances, he relies upon someone else, usually a specialist or a vendor, to obtain for him a document that contains the needed fact or facts. If there exist 100 documents containing the needed data, he only wants the first one available; ... He wants high relevance...\(^\text{119}\)

\(^{116}\) Ibid., p. 4.


\(^{119}\) Ibid., p. 9.
Carlson draws a distinction too, between the types of information available.

The more formal media are used primarily to record and transmit new engineering concepts and the experimental information about them. The "technical data" media are used primarily to package and transmit established engineering experience and the practical information gained from this experience. The relative importance of these two groups to the design or consulting engineer is no mystery to anyone; he wants the record of established practice packaged in a convenient form, and he has little use for the new concepts until they have been reduced to practice.120

Rosenbloom and Wolek confirm all the above findings by saying:

those who have investigated formal information transfer among R&D engineers and scientists have consistently found the same general pattern: Most engineers and scientists in mission-oriented organizations use informal media and local sources to meet most of their needs for technical information.121

Gerstberger and Allen surveyed the criteria used by research and development engineers in the selection of an information source.122 They hypothesised that the information channels which were readily accessible and easy to use would be used more frequently than those that were difficult to access and less easy to use. Their research established that "accessibility was the dominant cost criterion determining the relative frequency with which information channels are used."123

They also demonstrated that:

a strong positive relationship holds between the degree of experience an engineer has had with a given channel and both

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120 Ibid., p. 10.


123 Ibid., p. 275.
perceived accessibility and ease of use.\(^{124}\)

They established a strong indication:

that the degree of experience that an engineer acquires with an information channel does tend to lower his perception of the cost of using that channel.\(^{125}\)

In addition, Gerstberger and Allen suggest that:

Engineers, in selecting among information channels, act in a manner which is intended not to maximize gain, but rather to minimize loss. The loss to be minimized is the cost in terms of effort, either physical or psychological, which must be expended in order to gain access to an information channel. ... We are left with engineers behaving according to a simplified version of the law of least effort.\(^{126}\)

Rosenbloom and Wolek reported that when compared to scientists:

Engineers report a greater incidence of interpersonal communication with people in other parts of their own corporations [and that] when using documents, engineers tend to consult corporate reports or trade publications, while scientists make greater use of the professional literature.\(^{127}\)

Hall confirms the dependence of engineers on trade literature.

In reading for current awareness, most engineers rely on trade publications, not on journals covering basic research. Publications are favored which treat scientific developments in narrative or expository form without dwelling on mathematical detail.\(^{128}\)

Hall also reports that most of the studies of engineers in industry:

come to conclusions consistent with common sense. Trade journals are preferred sources of current awareness knowledge while colleagues, textbooks, handbooks and catalogues are preferred sources of problem solving information.\(^{129}\)

\(^{124}\) Ibid, p. 277.
\(^{125}\) Ibid.
\(^{126}\) Ibid.
\(^{127}\) Rosenbloom and Wolek, p. 41.
\(^{128}\) Hall, p. 67.
\(^{129}\) Ibid., pp. 67-68.
In the latest survey on the information needs of engineers, Michael Neale & Associates suggest that the reason engineers search this way is because of the need for distillation of the available information. It is concluded that:

There is considerable evidence that engineers at all levels use people in preference to documentation for information, presumably because some measure of distillation has occurred within the individual being questioned. Whatever the means or form of communication the content of the information i.e the distillate, will vary depending on the job responsibility of the engineer and the nature of the business in which he is employed.  

Nevertheless the main problem would seem to be the question of accessibility.

The engineer reads that which is convenient and inexpensive for current awareness. For problem solving, he searches the easiest places first, and gradually expands his search to libraries and remote sources when more convenient sources are inadequate.

In summary then, the choice of an information source made by an engineer, is influenced by one or more of the following factors:

- Availability, that the source is physically near the user and in an easily understood language
- Knowledge, that the existence and contents of the source are known
- Communication pattern, the user's habits: conversation, meetings, literature, etc.
- Communication channels, the possibility of communicating, outside of own environment: courses, seminars, periodicals, etc.


131 Hall, p. 68.

A further study by Disch on his first user survey and on a follow-up survey, suggests more reasons:

- The time pressure influences the choice, so that those sources are used that yield information in the shortest possible time.
- Ease of use is considered more important than reliability.
- Informal, often local sources are preferred when every-day problems have to be solved.
- In-house information meetings with personal contacts are preferred to SDI and library services. ...
- External, formal information services are used when new, general knowledge has to be used.\textsuperscript{133}

We have learnt in addition that engineers require practical and highly relevant information presented in either narrative or expository form. The engineer prefers to make personal contact with an individual who will tailor the information given to meet his personal needs. Furthermore, the information should not be expensive to obtain.

What then are the changes that need to be made to make our information resources more accessible and more acceptable to the engineer?

5.4 A BLUEPRINT FOR CHANGE

Although much of the information that engineers require is potentially available to them, the resources of libraries and information centres are often not used. A shift in library policies may be needed to reverse this situation. Wood and Hamilton concluded that it was:

information of the data type and on products and standards which the average engineer has difficulty in locating. This conclusion suggests that if any help is to be given to the mechanical engineer in the information field, it would be ... profitable to concentrate ... on the development at local level of services for the rapid retrieval of what can be termed "everyday information."

One of these services is defined as the availability of "guides to scientific literature," and it is suggested that "local authorities should improve their information facilities generally." Wood and Hamilton also recommended that because the smaller industrial firms have relatively poor facilities, to enable their staff to locate technical information, there should be:

Local facilities (possibly based on public libraries) to enable these firms to keep abreast of technical developments ... , or in cases where they exist already, made more effective.

In the collection area, Wood and Hamilton recommend that existing libraries should "increase their holdings of abstract journals" and provide "better collections of foreign publications".

While still on the subject of collections, Hall suggests that as accessibility is important in developing the use of written channels of information, the location of the library is important. He suggested that the library should "place more emphasis on making a smaller collection more accessible rather than on building an ever-expanding collection."

One example of a library which has adopted this kind of policy is the Shell Centre library in London. There, the Central Information

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134 Wood and Hamilton, p. 21.
135 Ibid.
136 Hall, p. 70.
Division operates a central library, while eight other Information Units are physically located in separate Divisions. Information Units operate in the Agrochemicals, Chemicals, Coal, Computing, Energy, Natural Gas, Special Projects and Supply/Marketing Divisions, and staff from those divisions take their queries to their own Information Unit. Each Unit has its own librarian, and its own collection of technical reports, trade literature and company data.

While librarians have their role to play in changing library policies, they also need to exert their influence on publishers to encourage the publication of needed reference tools:

Gerstberger and Allen suggest that one such need is "the publication of critical annual reviews with extensive reference lists." 138 Wood and Hamilton concur:

that new "state of the art" review publications would be welcomed in certain fields, e.g. management, power generators, automation and automobile engineering. Publishers of review journals should have this fact brought to their attention. 139

Wood and Hamilton also suggest that because engineers rely heavily on personal contacts for much of their information:

they would probably benefit from a more formal personal contact system and consideration should therefore be given to creating a central index of current research and development projects. 140

There could be a role for a publisher in this suggestion.

In their report, Michael Neale & Associates suggested to the British Library that specific investigations should be conducted:

138 Gerstberger and Allen, p. 278.
139 Wood and Hamilton, p. 21.
140 Ibid.
With the Patent Office into the extraction of useful information from patents [and]
With the British Standards Institution into the inclusion in Standards and Specifications of more information of use to engineering design and manufacture in addition to the current concentration on quality control.\textsuperscript{141}

The role of the librarian here could be to assist engineers to interpret their needs to the appropriate publishers.

Gerstberger and Allen consider that publishers, particularly the professional society publishers, should make their material more accessible, by changing its style. They point out:

The principal reason for the reluctance of engineers to use their professional literature is that, for the most part, they cannot understand it. Most of the professional engineering literature is too mathematically sophisticated for the average engineer to comprehend. It is therefore inaccessible to him. ... The professional societies should publish a literature form, whose technical content is reasonably high, but which is understandable by the audience to whom it is directed. This is not an easy task. And it does not necessarily imply that the societies forgo all of their present program of publications. What it does mean is that these publications are at least supplemented by a series of more readable works.\textsuperscript{142}

The authors further believe that "any steps to increase use through improving accessibility will be self-reinforcing."

Allen expressed this view in another way in discussion of his paper by commenting that "PhDs should be encouraged to communicate downwards."\textsuperscript{143}

In addition to changing library policies to meet the needs of engineers, and influencing publishers to meet the need for appropriate material, librarians and their educators must be prepared to extend their services, and teach basic information skills to engineers.

\textsuperscript{141} Michael Neale, A study of the Potential Contribution of the British Library to the Information Needs of Engineers, p. 27.

\textsuperscript{142} Gerstberger and Allen, p. 278.

Wood and Hamilton recommend that:

Efforts should be made to increase the number of engineers receiving training in the techniques of searching for information.\(^{144}\)

Such courses had already been undertaken by the Engineers Joint Council in New York when, in the early 1960's they ran week-long courses "in the abstracting and coordinate indexing of technical literature."\(^{145}\) Demand was so great that an agreement was made for an educational institution to continue the courses on a fee basis.

Librarians must be careful too, to ensure that our systems are easy to use. The Michael Neale report suggested that our new technology systems may be too complicated for engineers to use. It recommended to the British Library that it should conduct a specific investigation:

> into improved key wording and other retrieval mechanisms for extracting engineering information from computerised bibliographic files.\(^{146}\)

Gerstberger and Allen remind librarians that they must make their services:

more readily available. This may involve some rather expensive additions to personnel (library assistants specializing in particular technical areas, special messenger services, mobile libraries, etc.). But unless this additional investment is made the money spent on library holdings and facilities will be wasted.\(^{147}\)

Librarians need to experiment too, with new ways of making information available. The Michael Neale report suggests that the British Library should:

\[^{144}\text{Wood and Hamilton, p. 21.}\]
\[^{146}\text{Michael Neale, A Study of the Potential Contribution of the British Library to the Information Needs of Engineers, p. 27.}\]
\[^{147}\text{Gerstberger and Allen, p. 278.}\]
Investigate the potential of small private conferences of invited technical specialists as a means of generating information quickly and efficiently on key engineering topics.\textsuperscript{148}

Slater believes that "strategic and tactical ideas" involving "mind stretching and lateral thinking" are needed to overcome:

the issue of how to change or circumvent the organisational and other factors causing or contributing to non-use [of libraries and information sources.]

She suggests:

planned infiltration of the planning and policy making echelons of the organisation could avert non-use arising from an uninformed and so irrelevant library-information service.\textsuperscript{149}

While librarians have a responsibility to make their collections more available, and more accessible in an effort to bring information to engineers, the engineers themselves must share in co-operative effort.

Brodman explains:

the practitioner himself must be educated, as part of his formal education and by observation of his peers, to realize that he too has a responsibility for helping obtain the information he needs and for learning how he can do so most efficiently.\textsuperscript{150}

Lufkin suggests that:

If on-the-job learning is not enough for the professional man today, then he must make some systematic effort of his own. ... A good knowledge of how to continue his education might be of far greater value to a graduating engineer than anything he may have learned to pass any specific examination. In the absence of an effective formal program for continuing education, a systematic program of reading on

\textsuperscript{148} Michael Neale, \textit{A Study of the Potential Contribution of the British Library to the Information Needs of Engineers}, p. 27.


\textsuperscript{150} Brodman, p. 156.
his own, or at least a habit of serious reading for motives of curiosity rather than immediate problem solving, ought to go far to keep the professional man in touch with advances in theory in his own field and in the related fields that are most important to him.\footnote{J.M Lufkin, "The Reading Habits of Engineers - A Preliminary Survey," IEEE Transactions on Education E-9 (December 1966): 179-182.}

Not only then must librarians change, but also engineers. It would seem that we need to go back to the education system and change its design. Perhaps that is the only way we can change the working habits of engineers, and the attitudes of librarians to provide the services that are most needed by their users.
As the literature review on consulting engineers shows, quite a lot of research has been carried out on the information needs of engineers. However, not very much of that research has pointed out the needs of consulting engineers as a distinct professional group, so that this survey sought to contribute to the knowledge base in this area.

6.1 IN-HOUSE INFORMATION

Just over one third of consulting engineers (35.48 percent) felt that the amount of information coming across their desks each day was about right. But another 32.26 percent found it was too much, and 29.03 percent found it overwhelming. Only one respondent (3.23 percent) thought that he saw too little information.

If something of interest was found in the printed information 61.29 percent would read it and keep it. Another 16.13 percent would read it and then discard it, and the same percentage of people would keep the information without reading it. Only two (6.45 percent) would circulate the item of interest to other staff. Several respondents commented that they did not often read any article in depth. Rather, they skimmed items of interest and either put them away or let them pile up somewhere in the office hoping to read them thoroughly at a later date. In practice, this often meant that when the pile became too untidy or toppled over, the information was just thrown out.
The preferred method of storing information was in a bookcase in the respondents' room (45.16 percent). Just on one third of respondents (32.26 percent) had a library area for information storage, though it was not usually in a separate room and seven people (22.58 percent) used filing cabinets. One quarter (25.81 percent) claimed to make a mental note only of some information.

The amount of information stored by firms generally increased with size. Eleven firms (35.48 percent) had less than five metres of storage for information, another six (23.08 percent) between six and 10 metres, and only five firms (16.13 percent) had some 60 metres of shelving for information purposes.

As with the accountants' survey, it was found that minimal detail only could be publicised of spending by consulting engineers on information, because several of the firms had distinct numbers of employees and therefore could be easily identified, when anonymity had been promised. Although membership subscriptions to several professional societies or associations resulted in journals being received by some firms, these figures were excluded from budget figures so as not to bias the results.

No clear spending pattern emerged. Two sole practitioners claimed that they spent nothing on information, while one spent $1750, with the rest scattered in between. Only three firms spent either $5000 or $6000, with staff numbers varying from 20 to 80. One firm that spent very little relied on its Auckland office, which circulated journals and handled any information queries, although it did not employ a professional librarian to provide these services.
6.2 SOURCES OF USEFUL INFORMATION

The consulting engineers were asked to cite the sources of useful information that came into their offices. Journals that the firm subscribed to were the most useful source given by 67.74 percent of respondents. Advertising brochures were the next most useful source (61.29 percent), followed by journals and/or newsletters from their professional organisations (54.84 percent). Obviously printed information was still the most important source of information for most respondents, although conversations at seminars and meetings were useful to 22.58 percent of them (See Table 9):

6.3 THE NEED FOR INFORMATION - GENERAL TOPICS

Standards - Most consulting engineers (87.1 percent) used standards frequently, and some commented on their "prolific" use of them as an information source. This was an expected result, and all firms had collections of standards even if little else was kept in the way of resources.

Automation and new technology - Computer technology was another area where respondents had a high information need (83.87 percent). Several were interested in buying a computer, and were actively trying to keep up to date with the latest developments, while others tried to keep up to date in this area because of structural design requirements.

Government laws, statutes and regulations - This was another important information need for 67.75 percent of consulting engineers. Several respondents pointed out that the Association of Consulting Engineers kept them informed on impending legislation changes, which was a valued service. Two respondents used a firm of legal annotators to ensure that they kept up to date in this area.
### Table 9

**SOURCES OF USEFUL INFORMATION: CONSULTING ENGINEERS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journals/newsletters from your professional organisation</td>
<td>17</td>
<td>54.84</td>
</tr>
<tr>
<td>Journals that your company or organisation subscribes to</td>
<td>21</td>
<td>67.74</td>
</tr>
<tr>
<td>Pamphlets, brochures or circulars from trade or employers’ federations</td>
<td>5</td>
<td>16.13</td>
</tr>
<tr>
<td>Trade magazines</td>
<td>7</td>
<td>22.58</td>
</tr>
<tr>
<td>Advertising brochures</td>
<td>19</td>
<td>61.29</td>
</tr>
<tr>
<td>Newspapers</td>
<td>1</td>
<td>3.23</td>
</tr>
<tr>
<td>Conversations with others in similar business</td>
<td>2</td>
<td>6.45</td>
</tr>
<tr>
<td>Conversations with others in similar business at seminars, meetings etc.</td>
<td>7</td>
<td>22.58</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give all sources of useful information

Base: 31 responses
Overseas developments - Consulting engineers have an established need to be aware of overseas developments. For some, this is because they engage in overseas contracts. For most, however, it is the way to get new ideas to use in the course of their work when a novel approach may be needed to solve a problem. Over two thirds of respondents reported this need.

Local body by-laws, regulations, etc. - As consulting engineers are often working on structural and engineering problems, it was no surprise that they had a frequent need for local body information. Some 67.74 percent referred to it regularly.

Financial management - This was another high information need (67.74 percent). One respondent described his need in this area as "something that is always there, and you are never quite sure that you have all you should have." Some respondents said that they could not cope with their need in this area because of day to day work pressures and the need to generate income, so that they referred all queries to an accountant.

Statistics - Many consulting engineers (61.29 percent) needed statistical information. Usually the figures required related to costs or the cost of living, and prices information to assist with valuations. Energy statistics and demography were also needs mentioned by a few respondents.

Professional ethics - Both the Institution of Professional Engineers New Zealand and the Association of Consulting Engineers were given as sources of information for questions of professional ethics. Consulting engineers (58.07 percent) made considerable use of information in this area.
Shop/office fittings and equipment - Some 54.84 percent of respondents needed information on fittings and equipment. This helps to explain why 61.29 percent found advertising brochures such a useful source of information.

Small business - Just over half of the respondents (51.62 percent) had a need for information on small business. As almost 80 percent (77.42 percent) of the firms in the survey employed 25 staff or less, this was not surprising. As with financial management problems, some respondents simply gave queries in the small business area to their accountants to answer.

Staff training - Some 51.61 percent of consulting engineers needed information on staff training. Most showed a commendable attitude in wanting to keep their staff up to date in techniques and technology, not just for the benefit to the firm, but also for the professional development of the individual.

Shop/office security - The security of buildings, and alarm systems for that purpose, were needs stated by 41.93 percent of respondents. The general impression given was that they were always looking for something new in this field.

(See Table 10 for full results).
### Table 10

**GENERAL NEED FOR INFORMATION: CONSULTING ENGINEERS**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Frequently * Needed</th>
<th>Sometimes * Needed</th>
<th>Total * Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional ethics</td>
<td>48.39</td>
<td>9.68</td>
<td>58.07</td>
</tr>
<tr>
<td>Financial management</td>
<td>58.06</td>
<td>9.68</td>
<td>67.74</td>
</tr>
<tr>
<td>Small business</td>
<td>41.94</td>
<td>9.68</td>
<td>51.62</td>
</tr>
<tr>
<td>Statistics</td>
<td>45.16</td>
<td>16.13</td>
<td>61.29</td>
</tr>
<tr>
<td>Overseas developments in your profession</td>
<td>64.52</td>
<td>3.23</td>
<td>67.75</td>
</tr>
<tr>
<td>Government laws, statutes, regulations</td>
<td>41.94</td>
<td>25.81</td>
<td>67.75</td>
</tr>
<tr>
<td>Local body by-laws, regulations</td>
<td>58.06</td>
<td>9.68</td>
<td>67.74</td>
</tr>
<tr>
<td>Standards</td>
<td>83.87</td>
<td>3.23</td>
<td>87.00</td>
</tr>
<tr>
<td>Managing employees</td>
<td>25.81</td>
<td>9.68</td>
<td>35.45</td>
</tr>
<tr>
<td>Staff training</td>
<td>38.71</td>
<td>12.90</td>
<td>51.61</td>
</tr>
<tr>
<td>Industrial awards</td>
<td>16.13</td>
<td>9.68</td>
<td>25.81</td>
</tr>
<tr>
<td>Effective advertising/marketing</td>
<td>16.13</td>
<td>3.23</td>
<td>19.36</td>
</tr>
<tr>
<td>Prevention of work related accidents</td>
<td>16.13</td>
<td>6.45</td>
<td>22.58</td>
</tr>
<tr>
<td>Shop/office fittings and equipment</td>
<td>38.71</td>
<td>16.13</td>
<td>54.84</td>
</tr>
<tr>
<td>Shop/office security</td>
<td>35.48</td>
<td>6.45</td>
<td>41.93</td>
</tr>
<tr>
<td>Records management</td>
<td>12.9</td>
<td>12.90</td>
<td>25.80</td>
</tr>
<tr>
<td>Automation and new technology</td>
<td>70.97</td>
<td>12.90</td>
<td>83.87</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give all their information needs

Base: 31 responses
6.4 THE NEED FOR INFORMATION—CONSULTANT ENGINEERING

When asked about their information needs which particularly related to consulting engineering, four of the categories in the questionnaire were not relevant. The highest expressed need was for civil engineering information (35.48 percent). Electrical engineering (which was not a category on the questionnaire) was another need for 19.35 percent, and two respondents commented that "good quality specific information on specialist requirements" in this area was hard to get. Fire prevention, and mechanical engineering information related to plant and buildings, were needs of 12.90 percent, while industrial design requirements information was needed by 11.54 percent. All other needs were specific requirements of only one or two people (See Table 11).

It would seem from this survey that consultant engineers have some problems in finding engineering information on particular topics, but that they have a far greater need in areas of general information. This suggests that they need to be informed of the resources in public libraries, and services that organisations like SATIS and the Business Information Service of Wellington Public Library offer to commercial firms. This is where the Association of Consulting Engineers could assist, either by running a seminar on information sources (perhaps in conjunction with the Department of Librarianship at Victoria University of Wellington), or by arranging for an information sources column in their newsletter to be published from time to time.
# Table 11

PROFESSION SPECIFIC NEEDS FOR INFORMATION: CONSULTING ENGINEERS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil engineering</td>
<td>11</td>
<td>35.48</td>
</tr>
<tr>
<td>Company information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Export possibilities</td>
<td>2</td>
<td>6.45</td>
</tr>
<tr>
<td>Fire prevention</td>
<td>4</td>
<td>12.90</td>
</tr>
<tr>
<td>Job costing</td>
<td>2</td>
<td>6.45</td>
</tr>
<tr>
<td>Names of businesses to which you could sell your services</td>
<td>2</td>
<td>6.45</td>
</tr>
<tr>
<td>Names of product suppliers</td>
<td>2</td>
<td>6.45</td>
</tr>
<tr>
<td>Pollution control</td>
<td>2</td>
<td>6.45</td>
</tr>
<tr>
<td>Structural engineering</td>
<td>1</td>
<td>3.23</td>
</tr>
<tr>
<td>Tenders and contracts</td>
<td>1</td>
<td>3.23</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>20</td>
<td>64.52</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give all their information needs.

Base: 31 responses
6.5 INFORMATION SEEKING PATTERNS

a) In-house

Some 87.10 percent of consulting engineers needed information at least once a day, with the majority (77.42 percent) needing information several times each day. Just over 58 percent searched for the information themselves while 35.48 percent sometimes searched themselves, and sometimes delegated the task to someone else. Only two respondents (6.45 percent) always delegated their searching.

As just on one third of the survey respondents (35.48 percent) were sole proprietors of their firms, it was to be expected that they would do their own information searching. However, one could have thought that the remaining 22.58 percent would have followed the usual characteristic of the professions and delegated their information searching. Brodman\textsuperscript{152} however, pointed out that engineers in general expect to provide information for themselves as part of the tradition of the profession, while Carlson\textsuperscript{153} suggested that changes in this basic pattern "come about as the result of strong management motivation toward improving the effectiveness of the engineering organization." This indicates that the two firms where the respondents always delegated their information searching have a management who believe in delegating these tasks to more junior staff, so that senior staff time can be used for other (possibly management) duties. Interestingly, they were not the largest firms in the survey - one employed 15 staff, the other about 30.

\textsuperscript{152} Brodman, p. 152.
\textsuperscript{153} Carlson, p. 7.
It is noteworthy that more than half the consulting engineers, (all in senior management positions) spend considerable amounts of time each day looking for information that is most likely to be on standards, automation, government legislation, overseas developments, financial management, statistics and professional ethics. They are then, looking for general rather than specialist engineering information, which suggests that delegation would be feasible.

b) Outside Sources

Over half the respondents had sought information outside the firm within the previous week, and 19.35 percent of them had sought that information in the past day. One quarter had sought information within the past fortnight, but almost 13 percent claimed that they had only sought information outside the firm within the last year (See Table 12).

With the combined percentages, it seems that nearly 80 percent of the consulting engineers needed to seek information outside their firms at least once a fortnight. This confirms Slater's finding that "engineers have above average problems with information." 154

Using the telephone to seek information outside the firm was the clearly preferred method of just over 90 percent of respondents. Some 61 percent would make a personal visit to someone or to a place where they believed that they could find the needed information, but only 12.90 percent would write a letter (see Table 13). These results seem to fit the pattern found by other researchers, that some engineers will rely

154 Slater, British Librarianship, p. 246.
### Table 12

**INFORMATION SEEKING OUTSIDE THE BUSINESS: CONSULTING ENGINEERS**

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the past day</td>
<td>6</td>
<td>19.35</td>
</tr>
<tr>
<td>Within the past week</td>
<td>10</td>
<td>32.26</td>
</tr>
<tr>
<td>Within the past fortnight</td>
<td>8</td>
<td>25.81</td>
</tr>
<tr>
<td>Within the past month</td>
<td>2</td>
<td>6.45</td>
</tr>
<tr>
<td>Within the past year</td>
<td>4</td>
<td>12.90</td>
</tr>
<tr>
<td>Not for more than a year</td>
<td>1</td>
<td>3.23</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>31</td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

### Table 13

**INFORMATION SEEKING FROM AN OUTSIDE SOURCE: CONSULTING ENGINEERS**

<table>
<thead>
<tr>
<th>Preferred method of seeking</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write</td>
<td>4</td>
<td>12.90</td>
</tr>
<tr>
<td>Telephone</td>
<td>28</td>
<td>90.32</td>
</tr>
<tr>
<td>Make a personal visit</td>
<td>19</td>
<td>61.29</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>3</td>
<td>9.68</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to state all their methods of information seeking.

**Base:** 31 responses
heavily on personal contact, while most use "informal media and local sources to meet most of their needs for technical information." The results would also seem to confirm Gerstberger and Allen's results that engineers tend to select information channels that involve them in minimum activity - "the law of least effort" syndrome. While the consulting engineers preferred to telephone for their information, 77.42 percent of them preferred to receive it in written form. Many were happy to receive the required information over the telephone in the first instance, but asked for it to be sent in written form for confirmation. This explains why 35.48 percent of respondents listed the telephone as their second preference (see Table 14). Two respondents said that how they got their information was not important, so long as they did get it.

6.6 INFORMATION SEEKING EXAMPLES

The consulting engineers were asked to recall their most recent need for information and give the details of the search made. The results were collated manually and the topics were put into broad subject groups. These results did not tally accurately with the needs for information reported earlier, and so provided some interesting results. More consulting engineers said they had been looking for product information (price, supply and product detail) than for any other broad topic. This parallels Hall's finding that engineers have some dependence on trade literature for current awareness.

155 Wood and Hamilton, p. 4.
158 Hall, p. 67.
Table 14
PREFERRED RECEIPT METHOD FOR INFORMATION FROM OUTSIDE SOURCES

CONSULTING ENGINEERS

<table>
<thead>
<tr>
<th>Preferred method of receipt</th>
<th>First choice</th>
<th>Second choice</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>In written form</td>
<td>77.42</td>
<td>9.68</td>
<td>87.1</td>
</tr>
<tr>
<td>By telephone</td>
<td>12.9</td>
<td>35.48</td>
<td>48.38</td>
</tr>
<tr>
<td>By a visit from someone</td>
<td>3.23</td>
<td>3.23</td>
<td>6.46</td>
</tr>
<tr>
<td>By a visit to someone</td>
<td>6.45</td>
<td>6.45</td>
<td></td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to indicate both first and second choices.

Base : 31 responses

Table 15
MOST RECENT INFORMATION NEED AND SOURCE OF SUPPLY

CONSULTING ENGINEERS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Responses</th>
<th>Percentage</th>
<th>In-house</th>
<th>Outside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product information</td>
<td>9</td>
<td>29.04</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Design engineering</td>
<td>8</td>
<td>25.80</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Standards</td>
<td>6</td>
<td>19.35</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Town planning</td>
<td>5</td>
<td>16.13</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Government statutes and regulations</td>
<td>2</td>
<td>6.45</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>3.23</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>31</strong></td>
<td><strong>100.00</strong></td>
<td><strong>4</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

12.90% (87.10)%
Over 25 percent of respondents were looking for engineering design information, while only 19.35 percent needed to check standards. As standards were previously stated to be the most frequent information need, this suggests that one or other of the results is atypical. Town planning accounted for 16.13 percent of queries and access to government statutes and regulations for 6.45 percent (see Table 15).

In a subsequent question, respondents were asked if the example they had given was typical of their information need. Only three respondents replied that it was not and two of these were time differences only. The third had given an example of a dispute which required him to present evidence which took two to three hours to assemble, whereas he said that his usual query related to standards, and took no more than ten minutes to solve. This suggests that the sample of 31 consulting engineers may be too small to provide a pattern. Another explanation may be that the respondents tried to give examples that would be interesting to the survey, rather than cite for example, the repetitive detail that had just been checked a few minutes ago in a standard.

In Table 12 it can be seen that nearly 80 percent of respondents seek information from outside their firm at least once a fortnight. This result was confirmed by these results where 87.10 percent of queries were answered from outside the firm, and only 12.90 percent from in-house sources. This shows quite clearly that the majority of consulting engineers do not have adequate in-house sources in their firms to meet their information needs. Just over 60 percent of the consulting engineers' queries took half an hour or less time to answer. Only six percent took "a few minutes only." Some 16 percent took an hour to solve, and almost 13 percent took between two and four hours of searching before a successful result was achieved. In three examples
between seven and ten days was spent looking for information, and two of these consulting engineers actually went overseas on short trips in order to solve their problems. Several respondents commented that they often had to try several sources before an adequate solution was found.

Nearly half the queries (48.39 percent) needed immediate solutions, while another quarter of them (25.81 percent) had to be resolved within a week. However, in nearly 20 percent of cases, a month or longer could be taken to find the needed information.

Only one query was not successfully answered, and this was because a standard was only in the process of being drafted, so that a definitive answer was not available.

Over 90 percent of respondents acknowledged that they had found relevant information on a problem after it had been dealt with, almost a third of them frequently. Only three respondents (9.68 percent) claimed never to have had such an experience. In 71 percent of cases, the information had not been published recently, and respondents often made the comment that they knew that they had seen something on the matter somewhere, but it could not be found at the appropriate time. As with the accountants, better organisation and a catalogue or some sort of index to information held, would decrease the amount of time spent searching, and result in improved access to existing in-house resources. In 28.57 percent of replies the information had been published only recently. This may mean that the needed information was not available in New Zealand at the time, and that database searching could have supplied an answer. It could also mean that the consulting engineer concerned did not subscribe to the particular journal, and that by subscribing to an abstracting
journal, the solution to the problem could have been arrived at more quickly.

6.7 SOURCES OF INFORMATION

When asked to name the sources they used in their searches for information, the consulting engineers named many. The most frequently given one was suppliers (96.77 percent) confirming the earlier result that product information was most frequently sought. Government departments (especially Ministry of Works) and quangos were also highly used (93.55 percent) while information sought from the Standards Association of New Zealand (90.32 percent) gives some confirmation that the results listed in Table 15 and discussed under Information Seeking Examples (See Section 6.6 of this chapter) were atypical.

Use of the firm's library followed (83.87 percent), with its fourth placing in the ranking suggesting that it is not the place of first resort for some queries. This confirmed the results in Table 12 which suggested that many in-house libraries were not adequate to meet the needs of the firm.

Consultants were highly used (80.65 percent) suggesting that when particular expertise was not available in the firm it was "bought". Almost two thirds of respondents (64.52 percent) would contact someone in a similar profession and the local council, while just over half
### Table 16
**SOURCES OF INFORMATION: CONSULTING ENGINEERS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your own firm's library</td>
<td>26</td>
<td>83.87</td>
</tr>
<tr>
<td>The library of your professional/trade organisation</td>
<td>12</td>
<td>38.71</td>
</tr>
<tr>
<td>A government department or quango</td>
<td>29</td>
<td>93.55</td>
</tr>
<tr>
<td>Your local council</td>
<td>20</td>
<td>64.52</td>
</tr>
<tr>
<td>The Standards Association</td>
<td>28</td>
<td>90.32</td>
</tr>
<tr>
<td>The National Library</td>
<td>1</td>
<td>3.23</td>
</tr>
<tr>
<td>The Scientific and Technical Information Service (SATIS)</td>
<td>7</td>
<td>22.58</td>
</tr>
<tr>
<td>Your local public library</td>
<td>16</td>
<td>51.61</td>
</tr>
<tr>
<td>Someone in a profession similar to your own</td>
<td>20</td>
<td>64.52</td>
</tr>
<tr>
<td>A supplier</td>
<td>30</td>
<td>96.77</td>
</tr>
<tr>
<td>Someone in a university</td>
<td>15</td>
<td>48.39</td>
</tr>
<tr>
<td>Someone in a technical institute</td>
<td>6</td>
<td>19.35</td>
</tr>
<tr>
<td>A consultant in private practice</td>
<td>25</td>
<td>80.65</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>1</td>
<td>3.23</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to indicate all sources of information used.

Base: 31 responses
claimed to have used their local public library. People in universities were contacted by nearly 50 percent, and use of three trade associations (the New Zealand Concrete Research Association, the Building Research Association of New Zealand and the Timber Research and Development Association) was made by 38.71 percent (see Table 16).

Six firms were members of SATIS, but the majority of respondents had never heard of the service, although interest in its function was expressed by several respondents.

The wide ranging sources used by the respondents follow the pattern found by Allen who established that their selection was "dependent on the function to be performed" and related to the project's "time phase." 159 The results also confirmed Hanson's findings - firstly that many engineers do not seek information "first, or even at all, in libraries" 160 and that when seeking to solve a complex problem the engineer is not often "inclined to consider the library an important source of help." 161

6.8 USE AND NON-USE OF LIBRARIES

When trying to establish whether consulting engineers used libraries as a source of information, it was found that many of them did use some libraries. The Ministry of Works and Development Library, the Building Research Association of New Zealand Library, the New Zealand Concrete Research Association Library and Wellington Public Library were those most often cited. Only 16 percent claimed not to use libraries at all, 6 percent because they thought that they would not find useful practical

159 Allen, IEEE Transactions, p. 72.
160 Hanson, p. 70.
161 Ibid., p. 73.
information there.

Although libraries were used by consulting engineers, the problem-solving reputation of librarians is not high. Only 41 percent of respondents had usually got what they needed through libraries, while 44 percent said that they got the needed information only sometimes. Four people (13.79 percent) had always been unsuccessful with queries made through libraries.

The use of inter-library loan on a "sometimes" or "often" basis was restricted to the seven respondents (22.58 percent) whose firms belonged to SATIS. Another 19 percent claimed to have used the service, but only rarely, while 58.06 percent of respondents had not used the service, or even heard of it. Three people had commissioned an on-line database search - two through SATIS and one through an information broking firm. The remaining 90.32 percent were unaware of such a service and what it could do for them.

When asked whether they had any unsolved problems in their work, 29 percent of respondents could give specific examples. These included information on computer skills, how to stop windows in multi-storey buildings leaking, design for earthquake proof buildings, and statistics on the tourist industry. One person had a problem getting hold of overseas legislation and another needed help to find information on oxidation ponds for sewage disposal in Brunei. Yet another problem was how to prevent false alarms caused by dirt, dust and spiders in smoke detectors. These unsolved practical needs echo those found by Carlson who said that engineers want the "record of established practice packaged in a convenient form"162 and the Michael Neale study which

162 Carlson, p. 10.
concluded that engineers require their information to have had "some measure of distillation".163

Almost 20 percent of the engineers reported that they did not always solve a problem to their satisfaction because of time restraints, which ultimately meant that they had to compromise in their work. They commented that all problems had to be solved eventually because to arrive at a solution was the very nature of engineering. A few engineers said that they preferred to "go it alone" rather than "hunt up a solution" - they found this cheaper. However, about the same number of engineers commented that it was more efficient and therefore less expensive to use proven technology.

One respondent summarised the general attitude very well when he said "I will look for solutions almost unconsciously, because I am always looking for a better way of doing what I am doing now."

Again, these results point out the need for librarians to market their services to the consultant engineering profession. In view of the high use of the telephone as a first contact point, do librarians need to consider using more senior staff to deal with telephone requests? Does our library training teach reference interview skills so that the librarian is trained to find out what the caller actually wants, rather than simply answering the question asked? The need is clear here too for consulting engineers to have training in access to and use of information sources and resources.

6.9 INFORMATION SUPPLY IN AN IDEAL WORLD

When asked to nominate the organisation to which an information centre for engineers should be attached, 38.71 percent of respondents favoured the Ministry of Works and Development library. There were no other clear preferences for an organising body, but some organising guidelines were given. Most engineers wanted their information source close at hand, and were concerned that if such a centre were set up it should not duplicate already existing services. Although there was not much interest in who should control such a system, engineers wanted to ensure that confidentiality would be respected by the staff, so that their competitors did not gain an advantage.

The preference of all engineers (100 percent response) when asked how information could most easily be made available to them, was a telephone service. Twenty percent suggested that on-line computer services were a second preference which in time could become more important than telephone information request services. Most engineers wanted a one-stop service, so that they did not have to talk to several librarians before getting their problem solved, and they wanted it to be fast and efficient. Two respondents suggested that an upgraded SATIS service was what was needed, but another two thought that the suggested service would need to be staffed by engineers, as "librarians would not understand, and therefore not be able to solve my problems."

6.10 PAYMENT FOR INFORMATION SERVICES

When respondents were asked if they were prepared to contribute towards the cost of an information service, almost one third (32.26 percent) indicated that they were not willing to pay at all. The reasons given included, "We pay enough now," "Not justified," "Our professional
associations should provide these basic services," and "I do not use a service if I have to pay, so the government should provide a free service, to encourage its use."

However, over two thirds of respondents (67.74 percent) were prepared to pay for their information. Almost 50 percent preferred a fee basis provided it was tax deductible, and could be passed on to the client where appropriate. The rest (19.35 percent) preferred a subscription basis.

The engineers who were not willing to pay were all over 46 years old, but several in the older age groups (56 and upwards) were prepared to pay. The younger respondents accepted the inevitability that payment would need to be made for information in the future, but some expressed the hope that it would lead to savings in time and money.

Sixteen respondents worked in firms that employed ten or more people, and they were asked if they thought that the employment of a professional librarian would help them in their work. Seven replied in the affirmative. The other nine thought that their firms were too small and that the employment of a librarian would not be economic as there would not be enough work for him/her to do. One respondent commented that he thought that "Librarians are not good value for money," but several others suggested that there could be a contract or part-time role for a librarian in their firm, in the future.

Yet again, the need is plain for librarians to undertake marketing of the skills and services provided by their professional expertise. The profession needs to demonstrate to other professions that it can save time and money, as the second survey of this thesis shows. The need is clear here too for librarians to demonstrate flexibility in their working hours to meet the needs of smaller firms.
6.11 PERSONAL PROFILES

Of the 31 consulting engineers in the survey, 10 (32.68 percent) were sole proprietors, and the remaining 21 (67.33 percent) worked in partnership with others. Almost 80 percent had degree qualifications, and most belonged to at least three professional associations or institutions.

The majority of respondents were aged between 46 and 60 (64.51 percent) while 22.58 percent were aged 45 or under. All respondents had at least 11 years professional experience and the large majority (87 percent) had spent 20 or more years in their professional field. Thirteen (41.96 percent) had 30 or more years of engineering experience.

The numbers working in the consulting engineering firms varied greatly. Almost half the respondents (48.39 percent) worked in firms that employed eight or fewer people. Another 29 percent worked in firms that employed between 12 and 25 people. The numbers employed in the biggest firms were 32, 35, 50 and 85.

In general the results of this survey of consulting engineers conformed to the results found in earlier surveys on the information needs of all engineers. The consulting engineer expects to provide for some of his information needs, but is highly dependent on outside sources of information, and many of them, for the majority of his decision making.

There is some recognition within the engineering profession that librarians can be of assistance in this work. Nevertheless a concentrated marketing effort is needed from librarians so that librarianship is accepted by engineers as a profession, in the same way as engineering is recognised by librarians to be a professional occupation.
Chapter 7
LITERATURE REVIEW - LAWYERS

Why do we have to have laws and lawyers? The simple answer is that if we did not we would have anarchy and chaos. Laws are the basis of an orderly community where the rules which regulate the conduct of people towards each other are known or presumed to be known by the people or their advisers and enforced by the State.164

In New Zealand, the people who provide our legal advice are commonly called lawyers. They are in fact, barristers and solicitors of the Court, and have to be admitted by the Court or a Judge under the authority of the Law Practitioners Act. This act states the qualifications necessary.

Every person shall be qualified for admission as a barrister and solicitor who has attained the age of 20 years and comes within either of the following descriptions:

a) A person who has passed or been credited with passing the prescribed examination in general knowledge and law, and who has all the other qualifications (if any) prescribed for admission:

b) Subject to such conditions, the holding of such qualifications, and the passing of such examinations as the New Zealand Law Society in consultation with the Council of Legal Education thinks fit, a person who has been admitted as a barrister, solicitor, advocate, or attorney by a superior court in any other country.165

The aim of legal and decision making skills has been described as being:

To isolate relevant material from client story and documents, sort fact from opinion, identify legal issues, identify relevant facts, predict and present legal and non-legal solutions in descending order of importance and

therefore to solve a client's problem.\textsuperscript{166}

Often legal research will be required to assist the lawyer.

Once the decision has been taken that legal research is required, there are three factors relating to the client and his concern which also bear on the amount of research attention. The first is the relationship of the client to the law firm. If the client is important to the firm or if the firm would like the client to become important to it then the matter will be thoroughly researched. The second is the amount of money and/or reputation at stake in connection with the client's problem. If there is a great deal at stake then the matter will be closely and carefully researched. The third is the degree of complexity of the client's problem. The more complex, the more research is required. Typically, however, the firm's existence does not hinge on any one client, there is not a great deal at stake nor is the matter complex, with the result that research can be quickly completed.

Finally, the amount of research conducted will clearly be affected by the knowledge, degree of specialization and experience of the lawyer. Often, formal research can be eliminated by a lawyer thoroughly familiar with the legal area concerned.

In general, the medium and large firms conduct the bulk of the legal research. This is so for a number of reasons. First these firms tend to attract clients with more complex matters. Second, they can afford students who serve as a cheap source of research labour. Third, they generally have comprehensive libraries which are essential to extensive research. Finally, research itself can be made a specialised activity carried out by students and junior lawyers.\textsuperscript{167}

Research undertaken by New Zealand lawyers would seem to have the same characteristics. Miller suggests:

Lawyers familiar with an area of law already know the relevant cases and statutes and require only a knowledge of any recent changes. For those unfamiliar with a particular area, the first reference point will generally be a textbook, article, or digest. Both the expert and the non-expert lawyer may then read the cases or statutes, but these will not often have been their first step in legal research. Even those lawyers who do read the statutes or cases in the first instance will require a wider range of


\textsuperscript{167} \textit{Operation Compulex: Information Needs of the Practicing Lawyer} (Ottawa: Department of Justice, 1972), pp. 7-8.
reference as they will want to test their understanding of them by referring to secondary sources such as articles or textbooks on the subject. 

This is confirmed in a copy of a report sent to me by Miskin (as yet unpublished) where she states:

The lawyer cannot perform his professional duties away from a working law library, because the basic sources of law, statutes and law reports, are found in law books.... When faced with a problem the lawyer, in order to be able to function effectively, needs information. Once he has acquired that information he can then perform his second vital function - that of advising his client how to proceed.

7.1 LIBRARIES FOR LAWYERS

The 1984 edition of DISLIC, the Directory of Special Libraries and Information Centres in New Zealand, lists 17 libraries with law collections.

Six of them are in government department or government funded libraries, three in universities, and five are Law Society libraries. Only one legal firm is listed as having a library with a professional librarian, but it is known that eight other law firms in Wellington and six in Auckland now employ professionally qualified librarians to manage their libraries.

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168 Miller, New Zealand CLIRS p. 283.


170 P. Szentirmay and T.C. Szentirmay, DISLIC, pp. 1-95.

In addition, the Crown Law Office and the Law Commission have advertised professional librarian positions within the last few months.\textsuperscript{172}

Hand in hand with this rapid increase in the numbers of professional librarians in charge of law library collections, is a demand by lawyers for improved access to legal information. In 1982 a computerised legal information retrieval system was begun at Victoria University of Wellington by John Miller, a senior lecturer in law. He reported:

Work has already begun on collecting the initial data base consisting of Court of Appeal judgments and reprinted statutes. The reason for choosing these, apart from their obvious importance, is that they are already in a computer-readable format... [which] means that the cost of establishing the database is minimal...

The initial users of the information retrieval system will be students, staff and outside lawyers who use the University Law Library. ...

The aim of the two year pilot project is to introduce and train law students, staff and outside lawyers in the advantages and uses of computerised legal information retrieval and to ascertain the needs of the users.\textsuperscript{173}

In 1986, all Court of Appeal judgments and a selection of those from the High Court, were entered on to the University database as part of the information training given to second year law students.\textsuperscript{174}

The New Zealand Law Society established a committee to look at options for the development of computerised legal information retrieval systems (CLIRS). It found:

- current costs to be a formidable deterrent to the introduction of such a system in the short term.

\textsuperscript{172} Christine Moselen, Librarian, Chapman Tripp Sheffield Young, personal communication, 10 October 1986.


\textsuperscript{174} John Miller, personal communication, 19 October 1986.
The typical New Zealand practitioner was also found to regard ready access to public information - such as Land Transfer and Company records - of more immediate value than access to sources of law as such.\footnote{175}

The Society saw its particular responsibilities as being:

* overseeing the integrity of the data base established and ensuring its compatibility with the proposed CLIRS of other data bases which may be useful to lawyers ...

* negotiating data base contracts;

* educating practitioners in the use of the system;

* liaising with suppliers, users and so on.

As a result of these recommendations a committee was set up to:

ensure that developments within the profession are co-ordinated with developments of other organisations - particularly Government departments which contain records of land, companies, courts and other offices commonly referred to by practitioners.\footnote{176}

There is a further indication that access to some legal information may be improved before too long. A recent report tells us that the Government Printer has had a survey carried out by Price Waterhouse Associates, that looked at "ways of improving the accessibility and availability of legislation." It recommended the creation of a subject index to legislation. Some of its other recommendations were:

- The setting up of a legislation service within the publishing division of the Government Printing Office.

- Toll free dialling and freepost facilities to be offered to clients outside Wellington's centralised tele/mail order centre.


...As well as the subject index, these recommendations include simultaneous printing of new legislation in Auckland and Christchurch, and provision of legislation free to...
libraries and voluntary groups...177

There are many advantages such as these becoming available where librarians need to be alert to the opportunities of working with other professions to improve their information retrieval systems. Miskin exhorts:

In order to grasp the opportunities it is imperative for librarians working in this area to become familiar with computer techniques before the computer experts take over.178

7.2 THE LAWYER'S NEED FOR INFORMATION

When reporting on computerised information retrieval systems for lawyers, Miller said:

no survey has been done of what the New Zealand profession wants in its system, but... this will be undertaken in conjunction with the training programme proposed for later in 1983.179

Miller has confirmed that the planned survey will not now take place.180

In addition it is known that the New Zealand Law Society has not been active in this field.181

In the overseas literature, there is very little published material available on information use by lawyers. Miskin comments:

To try and ascertain what use lawyers make of existing information services has proved impossible to quantify...
Very little research has been carried out in this area. It is enormously difficult to separate this problem from the

178 Miskin, p. 54.
180 John Miller, personal communication, 19 October 1986.
closely related problem of what the real information needs of lawyers are. Most research has been carried out within the context of the provision of computerised legal information retrieval systems. ...

It is questionable how much idea lawyers have of their own information needs. It is easy to accept what is provided without questioning whether it is sufficient or good enough and there is no doubt that "what you've never had, you never miss" is particularly true of the provision of library and information services. Once a good service has been set up, the beneficiaries of it wonder how they ever managed before.

One specific study on the information needs of lawyers was undertaken in 1976 and 1977 by C.M. Campbell and D.H. Kidd from the Faculty of Law at the Queen's University of Belfast.

The purpose of the research project is to understand and describe the nature of lawyers' work with particular reference to their information needs. The research is comparative in its orientation: while the primary focus is the legal profession in England, the professions in Scotland and Northern Ireland will be examined as well. On the basis of information gained as to current legal work patterns possible improvements to current modes of the publishing of legal information and available research tools will be identified. A particular focus will be the potential of computer applications to legal practice and especially computerised legal information retrieval systems. Both in describing the current structure, nature and organisation of legal work and in ascertaining what improvements are, on a strictly practical view, possible, the research ought to provide a 'design specification' for any legal information retrieval system or, at least, identify the parameters within which such a design ought to be located.

According to Miskin:

This project has now been completed, but there have been long delays in publication. ...A confidential report has been circulated, but it has proved impossible to obtain this. When spoken to Professor Campbell said that his main finding had been that lawyers do not do research. They use secondary sources and when really stuck, they buy a book on "how to do it."

182 Miskin, p. 56.
184 Miskin, p. 57.
There are two further studies on lawyers and their information needs, on which published information is not yet available. The first, being undertaken by Alison Gelder, is a study of the information habits and needs of various users of employment law information. Miskin reports that:

Miss Gelder's intention in pursuing her research was to identify the difference between various user groups in the types of legal material they used, and the way they used them and also to identify how acceptable her subjects would find the use of computerized information retrieval methods.185

The second study was undertaken between 1977 and 1979 for the Commission of the European Communities and was a technical study in legal information in Europe. The intention as reported by Miskin was:

to investigate the needs of the European legal professions for legal information, to assess to what extent these were being met by existing services and to study any problem areas and make proposals for their solution. The study ... received a mixed reception. There have also been internal difficulties within the Commission over the implementation of its recommendations.186

The survey which is most nearly comparable in aim to the survey undertaken for this thesis is the study called Operation Compulex which was a survey of the information needs of practising lawyers in Canada.

It was commissioned by the Canadian Department of Justice. For the survey:

two hundred law firms across Canada were randomly selected in such a way that the sample mirrors the total practicing lawyer population in regional and urban distribution as well as in terms of the distribution of lawyers by size of firm. ...

Although two hundred firms were asked to participate, eighteen did not do so for one reason or another. This effectively reduced the sample to 182 firms which represent 3% of the total number of firms. These 182 firms employ 10% (1,544 lawyers) of the practicing lawyers in Canada. ...

185 Ibid., p. 56.
186 Miskin, p. 59.
The firms participated by being asked to fill out two types of questionnaires. The firm questionnaire inquired into matters concerning the firm, e.g. number of lawyers and cost and content of the library. The lawyer questionnaire was given to each lawyer and articling student in order to determine the "what", "where", "when" and "how" of personal legal research habits. Of a possible 182 firm questionnaire returns 139 (76%) were actually completed. Of a possible 1,544 lawyer questionnaire returns 1,111 (72%) were in fact completed.

In addition to the questionnaires, each of the 182 firms was visited by a consultant for an extensive interview averaging an hour and a half. 187

After giving a general description of Canadian law practice, Operation Compulex has four main parts - legal information; legally-related information; operational information; and a blueprint of conclusions and recommendations.

The study comments on the "traditional conservative orientation of the legal profession" which in legal research:

finds expression in lawyers' preference for books and their general respect for the current system of researching the law. 188

The cost of legal research was shown to be about $2000 per lawyer for library expenses, plus maintenance costs of about $300 per year per lawyer.

The problem areas in the current system of legal research in Canada were seen to be:

poor indexing systems which had no standard terminology;

competing law publishers resulting in an "overlapping, piecemeal law report system";

no specific Canadian textbooks in many areas of law;

187 Operation Compulex, p. 57.

188 Ibid., p. 8.
the lack of comprehensive indexes to federal and provincial regulations;

the lack of publication of tribunal decisions;

poorly organised and inadequate county court libraries; and

the problems caused by the time-lag in publication of statutes, regulations and court decisions.

These problems have resulted in lawyers developing "short cuts" which may include giving work to a lawyer who is familiar with the area either inside or outside the firm, employing law students to do research, obtaining the opinion of counsel; and/or developing personal indexes, opinion files, and updating legal texts by writing in them the citations of recent decisions. The report concludes that:

lawyers have evolved a complex network of informal mechanisms in response to the deficiencies of the basic system. Changes in this system which do not take into account these informal supplementary systems will fail upon implementation. Regardless of how carefully any proposed changes are introduced, they will meet with resistance due to the tradition of the current system, the depth to which its modifications have penetrated the whole fabric of the legal practice, and the fact that these modifications overcome some of the obvious shortcomings of the system itself. The system appears less efficient than it actually is in practice.189

Another attempt to establish the lawyer's need for information was made in 1981 by Leary and Cooper when they asked 1592 lawyers in the state of Michigan to evaluate their need for 34 kinds of research material, and to say where they obtained it, or if they were unable to obtain it. The aim of the survey was to improve access to legal information in Michigan

189 Ibid., pp. 10-11.
by finding out "what is now adequately supplied and what is missing."190

The survey found that:

about one-third of the respondents get what they need from their own library; a bit under a quarter of them get it from the county law library; and close to a fifth have unmet needs.191

It concluded that:

the legal research needs of Michigan lawyers are unmet in significant ways. ... this situation impedes the ability of members of the State Bar to perform research up to the standards of the profession. And evidence is mounting that each practitioner who does not have access to adequate research sources runs the risk of breaching his or her responsibility to clients.192

7.3 SUGGESTED SOLUTIONS TO IMPROVE ACCESS TO INFORMATION

Operation Compulex investigated three alternatives for improving legal research. They were to

- renovate the current book system,
- apply microfilm to eliminate some legal research problems, and to
- develop techniques for computer assisted legal research.193

The report concluded that there were:

only two direct benefits or payoffs that might result from an improved legal research system, i.e. higher quality of legal research and reduced research time. It must be kept in mind that we have described these payoffs in the most optimistic terms. ... it is conceivable that little or no improvement in legal administration would occur.194

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191 Ibid., p. 642.
192 Ibid., p. 645.
It also suggested that using microfilm to reduce both publication and mailing costs, as well as storage space would not be acceptable to lawyers because of their generally "negative attitude" to microfilm and "their investment in books." 195

The report also stated that there was "no justification for large scale development of computerized case law retrieval systems in Canada at this time." It suggested that any development of computer systems "should be concentrated in the statute law field", with "the option of retrieving statute law by subject and code as well as by keyword so as to be of use to the practicing lawyer." Another recommendation was that there should be "a means of searching for corresponding legislation in another jurisdiction as statute retrieval systems are developed for the provinces." 196

In 1986, one wonders how a recommendation not to computerise could have been made. However, when we consider the vast improvements in computer technology in the 14 years since publication of the report, it is more understandable.

Concern was expressed in 1973 by Silverman who studied Operation Compulex. He commented:

What is disturbing is the fact that, while there were some voices apparently calling for universal computerization of Canadian case and statute law, with the possible use of a centralized library or data bank, and government ownership and operation of a legal retrieval system and data bank, with operating costs to be paid by the users, the Q.C. report was not in favour of immediate plans and arrangements to computerize all of Canadian law (statutes and cases). 197

195 Ibid., p. 18.
196 Ibid., p. 46.
Silverman urges lawyers to "get in on the ground floor" of new technology developments although he suggests:

Perhaps the economics of the Canadian situation - the number of lawyers, their geographical distribution, the costs of computer services - militate against total involvement; and if that is so, as O.C. indicates, involvement on the Canadian legal scene should come from those who have the funds, the federal and provincial governments - without letting them control its operation to the extent that lawyers would be fearful of security breaches, or that political influence would play any part at all, i.e., utilize government assistance...198

The article concludes that:

O.C. has served a useful purpose in telling us what practicing lawyers think about and want with respect to legal information retrieval. However,199 conclusions are not as exciting as one might have hoped.

Silverman believes that ultimately the law (and lawyers) will find it hard to avoid using the new technology.

By 1980, some libraries in Canada were using computer services. Douglass MacEllven accepted the post of Director of Libraries of the Law Society of Saskatchewan with the hope of implementing the recommendations of the Freeman report. This report stated "all lawyers should have equal access to legal information" and "As far as possible this access should not be determined by location, size of firms, etc."200

MacEllven met the challenge of developing rural collections with limited funds by developing a research service for the province based on all available resources as well as the services of a private law librarian,

198 Ibid., p. 158.
199 Ibid., p. 159.
use of QUIC LAW computer databases, and establishing a network of nine telecopiers. These services provided the basis of a research service "similar to those given by law schools and private research companies", and were devised to be of use not just to lawyers in the major centres, but to rural lawyers as well.201

Naturally, other researchers and writers have looked at similar forms of co-operation in an effort to make best use of available resources, and skilled researchers. Beth Wilson's survey of law libraries in Australia found that:

By comparison with their Canadian counterparts, the Australian law society libraries have remained very small and library services to solicitors are most inadequate.202

Wilson also found that:

The law firm libraries vary greatly in size and quality. While some of the larger firms have developed reasonably good working collections which are in the care of trained librarians, others are very basic. ... A few of the larger law firm libraries contain sources which are apparently not held in other libraries, for example, current company and taxation legislation from foreign jurisdictions.203

Wilson's suggested solution was to create a national network of law libraries because:

To a large extent, the structural framework for a National Network of Law Libraries already exists, with the ALLG [Australian Law Librarians' Group] acting as an informal central agency and the individual law libraries linked through their branch groups in the regions. There is a need, however, to seek ways of strengthening the existing Network so that collection building is co-ordinated and law library resources are more effectively shared.204


203 Ibid.

204 Ibid., p. 227.
Another solution is suggested by Saltalamachia to the problem of accelerating costs resulting in budget cut backs. She believes that in the United States there should be a national law library for small and medium-sized law libraries. This library needs to act as a co-ordinating body and be a national authority with "the power to organize available resources and the administrative and financial clout to make policy." Saltalamachia believes that although networking has become popular, "these arrangements alone cannot solve ... needs for access to major research collections." 

She concludes:

Networking and cooperation are important, but also time-consuming, duplicative and wasteful. We need an existing facility to back up our networking projects and to provide consistent, efficient, and innovative leadership. Whether this facility is called the national law library or some other name, it is past time that we joined the real world and took the necessary steps to provide for our present needs as well as plan for the future.

Nissenbaum believes that there are other reasons for the formation of a national legal information centre. He suggests that:

Making legal information widely available facilitates greater access to justice. When both parties understand the implications of their actions and what options they have, a dispute can be avoided more readily. A national legal information center can provide the information-gathering dynamic to reduce the need for dispute resolution techniques. Many situations, if based upon adequate information, may never rise to the level of a dispute, allowing the legal system to devote scarce resources to more pressing issues.

A national legal information center alone, however, will not resolve the information crises. The automation of libraries necessary for accessing such information requires mass infusions of capital. ...If a proposal to provide a

206 Ibid., p. 649.
207 Ibid., p. 656.
unique information service were advanced, however, perhaps support within the general population would be fostered. Once supported politically, financial support for legal information would follow. 208

Nissenbaum concluded:

A national legal information center will contribute to legal socialization through service to those needing legal information. Offering legal information will create the political base necessary to attract public infusions of capital to support the technological infrastructure of the national legal information centre and resolve pressing national legal information needs. 209

Brodman also supports the view that the Federal Government has a responsibility in the area of information provision. She writes that practitioners who work within an institution usually have some access to information through their institutional library. But:

The practitioner on his own - as many physicians and lawyers are today - is in an even less enviable position because his informational needs are the prime concern of nobody but himself and the society he ministers to. Yet if society believes that the work of these practitioners is so important to its members that the standards must be maintained through compulsory licensing ... then it follows that society as a whole ought to take a hand in providing some easy access to information for practitioners. 210

This suggests that the government does have some responsibility in legal information provision. Brodman believes that perhaps the best thing that the government could do would be:

to underwrite several different approaches to solving the problems of the need of the professions for informational materials. 211

She says:

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209 Ibid., p. 705.
210 Brodman, p. 154.
211 Ibid., p. 155.
Too rigid an insistence on uniformity is probably undesirable; instead investigation of many different approaches should be made...

She continues:

Since it is obvious that information cannot be made available unless (1) the practitioner knows of its existence, (2) knows how to get hold of it, and (3) can get hold of it, the Federal Government should attempt to aid the various schemes already proposed (and some not yet considered) for calling new knowledge to the attention of the practitioners. The Government should also see to it that professional students are taught the entry points to the system of knowledge in their field, by requiring such knowledge for licensure wherever there is a national (not state) licensing system.

The Federal Government should also arrange a system whereby any practitioner anywhere can obtain the information he needs in his profession within a reasonable time for a reasonable cost. This latter would include payment for such services to the already existing libraries and other resources that can or will answer the needs of such practitioners.

The government, however, does not have sole responsibility for providing practitioners with their needed information. Brodman points out:

The professional society today has an equally large responsibility in these fields; moreover, being closer to the practitioners themselves than the Governmental agencies, it can outline the needs and determine the results of attempts to provide help to its members... More cooperation between the Federal Government and professional societies would be a desirable symbiotic relationship, with the citizen as ultimate consumer benefiting greatly.

Finally, the practitioner himself must be educated, as part of his formal education and by observation of his peers, to realize that he too has a responsibility for helping obtain the information he needs and for learning how he can do so most efficiently.

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212 Ibid.
213 Ibid., p. 156.
7.4 CURRENT RESEARCH DEVELOPMENTS

The journal Current Research in Library and Information Science lists several research projects of interest to the legal profession. In Canada, the Canadian Law Information Council's Research Department studied:

the currently-used editorial standards for headnotes for legal case reports. The project is particularly interested in standards for the identification of a court case, e.g., style-of-case, case date, court name, index standards. The project will produce draft standard rules of citation and format.214

This project concluded in July 1983. Almost concurrently, the Council was researching the access to case law, in an effort to develop standards. The research consisted of:

a structured systems analysis of the production and distribution of 'Reasons for Judgement' in a number of Canadian courts, in different jurisdictions, at different levels in the court hierarchy in order - to develop standards for high quality access to judicial decisions, - to develop standards for consistent high-quality case law reports; - to develop options in the use of particular mechanisms for the production of court decisions (manual or automated systems); - to develop alternative information-management strategies; - to assess efficiency in judgment handling; - to develop some basic parameters for the development of a national case-law automated-access system.215

These two projects were further developed by a third research project which was undertaken in 1985. Its aim was to "develop standards for headnotes for case law reports," and to ultimately produce a thesaurus of descriptors for case-law reports.216 Such a thesaurus should be a valuable tool for the producers of legal databases.


Further work of interest to lawyers on the development of suitable language and logic for database systems is taking place in West Germany. The project began early in 1983, and should be completed at the end of 1987. Its objectives are:

- to design a natural-language-based knowledge acquisition and query system and to implement a prototype to be tested in connection with a legal application. Research will concentrate on knowledge acquisition from texts by natural language processing techniques...The prototype will first be used in the domain of German traffic law as a consultation system for lawyers and as tutor for law students. The knowledge base will contain the relevant laws, legal comments, court decisions etc., in a formal representation as well as the full texts.217

European Community legal information should also become more easily accessible with the development of a database to be called ELLIS - European Legal Literature Information Service.

ELLIS is a multi-lingual, multi-media information service on European Community law. The objective of ELLIS is (i) to increase the availability of EC commentary by providing a single, comprehensive and in-depth research tool (ii) to improve accessibility to problem-solving information and interpretation (iii) to identify proposed and actual legislation and case law relating to EC law and legislation and (iv) to provide in-depth informative abstracts.218

Although it was hoped that ELLIS would start during 1985, it is not yet listed as available in current on-line database directories.219 220

From 1980 to 1982 a "feasibility study on the design, construction and operation of an automated data base of Irish legal information" was carried out at University College, Dublin.

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The full text data base,... covers statute and case law and relevant commentaries... Members of the legal profession have evaluated the resulting experimental information system.221

It is assumed that the project is either completed, or has been abandoned. Replies to my letters requesting further information on the project, have not been received.

Details of two other projects were found which are of marginal interest. Both were carried out in 1982-83. In the first, Loughborough Library and the local solicitors group shared the cost of a subscription to LAWTEL using the library's Prestel set. Lawyers and their staff members could either use the service themselves or ask the library staff to use it for them. On completion of the experiment, the Local Solicitors Group did not renew the LAWTEL subscription.222

In the second project, the effect of on-line systems on academic legal education was studied and suggestions made on integrating developments with library services.223

Such varied and widespread research activity augurs well for the development of computerised legal databases to a high standard. It seems that much effort is being put into ensuring easy access to the records, and this will benefit libraries as well as lawyers.

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7.5 A LEGAL DATABASE FOR NEW ZEALAND

Since the investigations by Miller and the deliberations of the New Zealand Law Society from 1982 to 1984, (See Section 7.2 of this chapter) little progress has been made on the supply of a computerised legal database for New Zealand lawyers. Miller suggested that any legal database structure:

should start by making available a current awareness service, and secondary materials such as digests, articles and abstracts.\textsuperscript{224}

A computerised system would also offer:

an ideal opportunity for the provision of new databases which are not at present available in printed form. Databases such as: unreported judgments, administrative tribunal decisions, and land, company, and Court records. ...

[It] should also provide other databases, such as news and financial information databases. In many cases it is not the law that a lawyer finds difficult to ascertain, but the facts.\textsuperscript{225}

Miller suggests that there should also be "a full text of the statutes and cases."

The real problem however, is not what to include, or leave out of the database, but the benefits a fairly small population of lawyers could achieve from access to material relating specifically to New Zealand. As Bell reports:

In the last analysis, the cost-effectiveness of computerised legal information retrieval systems is difficult, if not impossible to measure.

He continues:

As with information retrieval in any business, the volume of raw information is discouraging. [It is] estimated that there are currently over 55 million bytes (characters) of statute law alone, with 8 to 9 million bytes added annually.

\textsuperscript{224} Miller, New Zealand CLIRS p. 280.
\textsuperscript{225} Ibid., p. 283.
And that is without considering the vast number of judgments and legal interpretations coming daily from the courts.\textsuperscript{226}

Bell suggests that there are three possible ways of "bringing lawyers' large-scale information needs and the power of computer systems together."

The local choice would seem ... to be between encouraging Government to provide some support and encouragement for a CLIRS development, or to stimulate one of the larger computer bureaux,... to take an interest in legal database maintenance. ... 

Perhaps, dare we suggest, another role for the National Library computer system?\textsuperscript{227}

It would seem that for the next few years there is no possibility of New Zealand having its own computerised legal information retrieval system. No survey has been conducted on the information needs of New Zealand lawyers, so that there is no way of knowing whether such a system would be cost effective. It is known that a large amount of capital would be required to input the vast amount of basic legal information on to a database, but the small number of lawyers in New Zealand suggests that the service would not be commercially profitable.

My conclusion is that for such a database to be viable, not just lawyers, but accountants, businesses, libraries, manufacturers, and indeed the general public should be given access to it. Perhaps a consortium of government, legal, accountancy and librarianship representatives is needed to establish priorities and recommend appropriate support from their professional bodies for a computerised legal retrieval system. In this way, we might then progress towards providing access to legal information for everyone in the country.


\textsuperscript{227} Ibid.
Chapter 8

RESULTS - INFORMATION AND THE LAWYER

As we have seen, there is very little published information available on the information needs of lawyers. A survey was to have been undertaken in New Zealand to establish the need of the legal profession for a computerised information retrieval system, but regrettably, did not take place. This survey endeavours to ascertain the use lawyers make of existing information services, establish the problems, and get some idea of the services that the legal profession might like to have in an ideal world.

8.1 IN-HOUSE INFORMATION

Some 41 percent of lawyers (24 of the 58 interviewed) thought that the quantity of printed information coming across their desks each day was about right. Twenty-nine percent thought that they saw too much information, and just over 20 percent were overwhelmed by it. Only 8.62 percent of lawyers thought that they did not see enough information.

If something of interest was found in the printed material received, 62.07 percent would read it and keep either the original or a photocopy for future reference. Just over 20 percent would read the information and discard it, while 17 percent would keep it for future reference. In practice, most lawyers in the last category admitted that they put articles aside hoping to read them later on, but rarely did so. It was notable that no lawyer circulated items of interest to other staff.
The majority of information received by 70.69 percent of respondents was kept in a library. Most however, had more than one system. Precedents and subject information folders and/or box files were kept either on bookcases in individual offices (25.86 percent) or in filing cabinets (10.34 percent). Information either on a client or of concern to that client was invariably put on the client's file (18.97 percent). Almost one third of respondents (32.76 percent) claimed to make a mental note only of interesting information.

There was no discernible pattern to the amount of information kept by law firms. Some large firms kept surprisingly small amounts of information, while the reverse was true of some of the smaller firms. Only two firms had more than 150 metres of shelving in their libraries - one had 70 staff, the other 26. There was also no discernible pattern in spending on law libraries. The range of budget and/or actual expenditure varied from $500 to $40,000. At the lower end of the scale, one found smaller firms spending under $2250. However, these firms varied in size from 18 staff down to a sole practitioner. At the high end of the scale firms with 90 to 100 staff spent $40,000, but two firms with only 23 and 26 staff respectively, both spent $28,000. Further variation is seen in that one firm with just seven staff spent $12,500 on its information needs, while another firm with 70 staff spent only $2500. Another point of interest is that 23 percent of respondents claimed not to know what their firm spend on information. As half of them were partners that would almost certainly have access to the firm's accounting records, it would seem that some at least, were not prepared to disclose the amount spent.
8.2 SOURCES OF USEFUL INFORMATION

The lawyers were asked to identify the most useful sources of information that came into their offices. Journals that the firm subscribed to were by far the most useful source cited by 96.55 percent of respondents. Journals and/or newsletters from the professional organisations for lawyers were the next most useful source. In particular, many respondents mentioned that Council Brief, published by the Wellington District Law Society, was the most relevant journal in this area. Newspapers were found useful by nearly 40 percent.

While printed information rated most highly, conversations with others in similar business (either by telephone or over lunch) were an important information source for more than half the respondents (55.17 percent), while conversations at seminars and meetings were important to 39.66 percent (See Table 17).

It was of interest that although Miller\textsuperscript{228} thought lawyers would look at textbooks first when starting research, no lawyer mentioned them as a useful source of information.

8.3 THE NEED FOR INFORMATION - GENERAL TOPICS

Government laws, statutes and regulations - As was to be expected the greatest information need of lawyers was that to be found in government laws, statutes and regulations. While a 100 percent response was expected, the actual was 89.65 percent.

\textsuperscript{228} Miller, New Zealand CLIRS, p. 283.
Table 17

SOURCES OF USEFUL INFORMATION: LAWYERS

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journals/newsletters from your professional organisation</td>
<td>36</td>
<td>62.07</td>
</tr>
<tr>
<td>Journals that your company or organisation subscribes to</td>
<td>56</td>
<td>96.55</td>
</tr>
<tr>
<td>Pamphlets, brochures or circulars from trade or employers' federations</td>
<td>3</td>
<td>5.17</td>
</tr>
<tr>
<td>Trade magazines</td>
<td>1</td>
<td>1.72</td>
</tr>
<tr>
<td>Advertising brochures</td>
<td>5</td>
<td>8.62</td>
</tr>
<tr>
<td>Newspapers</td>
<td>23</td>
<td>39.66</td>
</tr>
<tr>
<td>Conversations with others in similar business</td>
<td>32</td>
<td>55.17</td>
</tr>
<tr>
<td>Conversations with others in similar business at seminars, meetings etc.</td>
<td>23</td>
<td>39.66</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give more than one source of useful information.

Base: 58 responses
Professional ethics - Of the 68.96 percent of lawyers who needed information on professional ethics, 43 percent needed it frequently. The place of first resort was the New Zealand Law Society's Code of Ethics 229 and respondents also often discussed ethics questions - usually with other in-house lawyers.

Automation and new technology - About 60 percent of lawyers tried to keep up to date with some area of development in the automation field. Several law firms had their accounting records on computer, so that the partner in charge of that section of management would look for new developments in that area. Others were considering buying a computer either for the first time or to replace existing models, so that they needed to be aware of all the possibilities. One firm was looking at computer information in the hope that it could load much of its library information on it and dispose of the hard copy.

Statistics - More than half the respondents (55.17 percent) needed statistics to help them in their work. The Consumers' Price Index was the source most frequently consulted, usually by a telephone call to the Department of Statistics to ensure that the latest figures were being supplied. Inter-firm comparisons, population and criminal offending statistics were other regular needs.

Local body by-laws, regulations etc. - Over 50 percent of respondents needed to refer to local body by-laws and regulations. The general comment was that most of this information was hard to trace and not readily available.

Financial management - Over 50 percent of respondents needed financial management information. There were two aspects. One type of information was needed for clients whose needs varied from budgeting to investment planning. The other was information for the management of the firm. Some lawyers claimed that they left this latter need solely to their accountants.

Overseas developments - Some 46 percent of lawyers tried to keep abreast of overseas developments in at least some areas. Workers compensation, contract law and matrimonial proceedings were all given as matters of interest. One respondent spoke of his firm's attitude saying "We try not to be ostrich like, but to foresee developments for New Zealand."

Small business - Information on small business was a frequent need of almost 38 percent of respondents. It was a topic where most lawyers found that little information existed, and three commented that attendance at a continuing education seminar had been most helpful.

Standards - Access to standards was most often required to help resolve disputes. Over one third of respondents had needed them.

Industrial awards - While some firms had arranged for needed awards to be mailed to them on a regular basis, others struggled to get access to them when they were needed. Clerical and non-legal staff awards were those most frequently needed by almost one third of respondents.

Records management - This subject was most often an information need in smaller firms where there were few ancillary staff, and practitioners had to share in responsibility for both filing and finding information. Common needs were for information on adequate accounting records, and the optimum size of records at which transfer to computer becomes economic.
### Table 18

**GENERAL NEEDS FOR INFORMATION: LAWYERS**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Frequently* Needed</th>
<th>Sometimes* Needed</th>
<th>Total* Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional ethics</td>
<td>43.10</td>
<td>25.86</td>
<td>68.96</td>
</tr>
<tr>
<td>Financial management</td>
<td>36.21</td>
<td>15.52</td>
<td>51.73</td>
</tr>
<tr>
<td>Small business</td>
<td>37.93</td>
<td>5.17</td>
<td>43.10</td>
</tr>
<tr>
<td>Statistics</td>
<td>20.69</td>
<td>34.38</td>
<td>55.17</td>
</tr>
<tr>
<td>Overseas developments in your profession</td>
<td>24.14</td>
<td>22.41</td>
<td>46.55</td>
</tr>
<tr>
<td>Government laws, statutes, regulations</td>
<td>84.48</td>
<td>5.17</td>
<td>89.65</td>
</tr>
<tr>
<td>Local body by-laws, regulations</td>
<td>32.76</td>
<td>20.69</td>
<td>53.45</td>
</tr>
<tr>
<td>Standards</td>
<td>15.52</td>
<td>20.69</td>
<td>36.21</td>
</tr>
<tr>
<td>Managing employees</td>
<td>17.24</td>
<td>5.17</td>
<td>22.41</td>
</tr>
<tr>
<td>Staff training</td>
<td>18.97</td>
<td>5.17</td>
<td>24.14</td>
</tr>
<tr>
<td>Industrial awards</td>
<td>20.69</td>
<td>12.07</td>
<td>32.76</td>
</tr>
<tr>
<td>Effective advertising/marketing</td>
<td>6.90</td>
<td></td>
<td>6.90</td>
</tr>
<tr>
<td>Prevention of work related accidents</td>
<td>1.72</td>
<td></td>
<td>1.72</td>
</tr>
<tr>
<td>Shop/office fittings and equipment</td>
<td>13.79</td>
<td>8.62</td>
<td>22.41</td>
</tr>
<tr>
<td>Shop/office security</td>
<td>6.90</td>
<td>5.17</td>
<td>12.07</td>
</tr>
<tr>
<td>Records management</td>
<td>17.24</td>
<td>8.62</td>
<td>25.86</td>
</tr>
<tr>
<td>Automation and new technology</td>
<td>36.21</td>
<td>24.14</td>
<td>60.35</td>
</tr>
<tr>
<td>No advice or information needed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td>5.26</td>
<td></td>
<td>5.26</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give all their information needs.

**Base**: 58 responses
Staff training and Managing employees - The information needs of lawyers in both these areas is low (under 25 percent) when the staff numbers as a whole are considered. Two respondents only stressed that they considered staff training to be their most important information need because well-informed staff were an essential ingredient of the firm's reputation. One of them said that he believed a continuing education policy for staff ensured that time devoted to management of employees was kept to an absolute minimum.

(See Table 18 for full results).

8.4 THE NEED FOR INFORMATION - LEGAL

When asked to indicate their information needs in specific legal areas, the replies of lawyers showed that many of them had very wide ranging needs indeed. While a few specialised in particular areas such as conveyancing, most lawyers handled a variety of work. This seems to account for the legal information needs not being as great as expected. The two highest expressed needs (53.45 percent) were for information on conveyancing and matrimonial matters. Several lawyers expressed their sadness that matrimonial cases occupied large amounts of time - much larger than say, ten years ago.

The next highest need was for information on commercial law (39.66 percent), followed by wills and estate administration (29.31 percent). Taxation was the only other need to score over 20 percent (See Table 19).
Table 19

PROFESSION SPECIFIC NEEDS FOR INFORMATION: LAWYERS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident compensation</td>
<td>3</td>
<td>5.17</td>
</tr>
<tr>
<td>Business and company law</td>
<td>8</td>
<td>13.79</td>
</tr>
<tr>
<td>Commercial law</td>
<td>23</td>
<td>39.66</td>
</tr>
<tr>
<td>Consumer problems</td>
<td>2</td>
<td>3.45</td>
</tr>
<tr>
<td>Conveyancing</td>
<td>31</td>
<td>53.45</td>
</tr>
<tr>
<td>Criminal law</td>
<td>11</td>
<td>18.97</td>
</tr>
<tr>
<td>Debt</td>
<td>4</td>
<td>6.90</td>
</tr>
<tr>
<td>Immigration</td>
<td>3</td>
<td>5.17</td>
</tr>
<tr>
<td>Matrimonial and family</td>
<td>31</td>
<td>53.45</td>
</tr>
<tr>
<td>Planning licences and tribunals</td>
<td>1</td>
<td>1.72</td>
</tr>
<tr>
<td>Taxation and estate planning</td>
<td>13</td>
<td>22.41</td>
</tr>
<tr>
<td>Tenancy</td>
<td>3</td>
<td>5.17</td>
</tr>
<tr>
<td>Wills and estate administration</td>
<td>17</td>
<td>29.31</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>22</td>
<td>37.84</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give all their information needs.

Base: 58 responses
Lawyers then, have a primary need in the information area for access to a collection of government laws, statutes and regulations. They have a broad range of other needs, a few of which are legal topics, but the majority come under the broad heading of general information. Difficulty had been experienced in getting some information - local body regulations, small business and industrial awards were specifically mentioned. This suggests that while lawyers seem to be reasonably well informed on the location of legal information, they are not so well informed on the location of general information. Lawyers should perhaps, be considering two options - either they could employ a librarian, even part-time, to do general searching for them, or they could join SATIS or the Business Information Service of Wellington Public Library. The use of such services, which have nominal charges, should be cost-efficient, because it would enable lawyers to spend time previously spent searching for information, in the practice of law.

8.5 INFORMATION SEEKING PATTERNS

a) In-house

Over 86 percent of the lawyers in the survey needed access to information at least once a day, and almost two-thirds of them (63.79 percent) needed some sort of information several times each day. Over 63 percent (63.79 percent) always did their own research to find information, while 36.21 percent sometimes did, but sometimes delegated their information searching to someone else. It was a surprise to find that less than one third of information requests were delegated, as it is a recognised characteristic of professional firms that senior members of staff will delegate such work to more junior staff. Over 65 percent of respondents were partners of their firms, with only 6.90 percent of
that number being sole practitioners, which suggests that many senior members of legal firms do not delegate a great deal of their information searching. While this may suggest that our lawyers are thoroughly familiar with certain aspects of the law and do not need to do research, the wide variety of information needs of lawyers as seen in Tables 18 and 19 does not support this view.

It is more likely that the personal files of information built up by individual lawyers - precedent and subject files - are highly used, and may often contain sufficient information for the lawyer to proceed to decision-making without any further searching (by either seniors or juniors) being needed.

b) Outside Sources

When respondents were asked when they had last sought information from an outside source, 79.31 percent reported that they had done so within the last two weeks. 62.07 percent of them had done so within the last week, while 15.52 percent had gone outside the firm seeking information within the last day. Only seven respondents (12.07 percent) claimed that they had not sought information from outside sources for more than a year. With combined percentages, it seems that the majority of lawyers (81.03 percent) look for information outside their firm at least once a month, with at least half of that number doing so at least once a week (See Table 20).

The preferred method of seeking information outside the firm was for the lawyer concerned to make a personal visit to the place where s/he thought that the information could be found. Forty lawyers (68.97 percent) claimed they did this regularly. The telephone was used by almost 38 percent, while some 17 percent would write away for needed information (See Table 21).
Table 20

INFORMATION SEEKING OUTSIDE THE BUSINESS: LAWYERS

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the past day</td>
<td>9</td>
<td>15.52</td>
</tr>
<tr>
<td>Within the past week</td>
<td>18</td>
<td>31.03</td>
</tr>
<tr>
<td>Within the past fortnight</td>
<td>10</td>
<td>17.24</td>
</tr>
<tr>
<td>Within the past month</td>
<td>10</td>
<td>17.24</td>
</tr>
<tr>
<td>Within the past year</td>
<td>4</td>
<td>6.90</td>
</tr>
<tr>
<td>Not for more than a year</td>
<td>7</td>
<td>12.07</td>
</tr>
<tr>
<td>Totals</td>
<td>58</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 21

INFORMATION SEEKING FROM AN OUTSIDE SOURCE: LAWYERS

<table>
<thead>
<tr>
<th>Preferred method of seeking</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write</td>
<td>10</td>
<td>17.24</td>
</tr>
<tr>
<td>Telephone</td>
<td>22</td>
<td>37.93</td>
</tr>
<tr>
<td>Make a personal visit</td>
<td>40</td>
<td>68.97</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>3</td>
<td>5.17</td>
</tr>
<tr>
<td>Never seek information from an outside source</td>
<td>1</td>
<td>1.72</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to state all their methods of information seeking.

Base: 58 responses
While lawyers either personally sought, telephoned or wrote away for information, all but two respondents (96.55 percent) required the answer in written form as a first choice. Information was only rarely acceptable over the telephone, and most required that the information be confirmed in writing. This follows legal tradition, where as much evidence as possible is collected in written form (See Table 22).

8.6 INFORMATION SEEKING EXAMPLES

The 58 lawyers in the survey were asked to recall their most recent need for information and give the details of their search. Results were collated manually and the topics cited put into broad subjects groups. As earlier results (see Table 17) showed, the most frequent information need was for legislation - mostly from New Zealand, but sometimes from the United Kingdom, and occasionally from other countries such as Japan. Professional ethics claimed to be a high information need as seen in Table 18, did not occur among these examples; nor did statistics. Financial management, and matrimonial and family law were cited but did not reach the 50 percent demand seen in Table 18. Looking for precedents and unreported case law was revealed to be a frequent task.

These results confirmed those of Table 20 which indicated that lawyers frequently have to go to sources outside their firm to find information. Some 38 lawyers (65.52 percent) had found the answer to their most recent information request from outside sources, while 17 (29.31 percent) had found their needed source material in-house. Three respondents (5.17 percent) had solved part of their query through in-house sources, but had had to go outside the firm to finish solving the problem.
The High Court Library was the most frequently stated outside source being used by 21 respondents (36.21 percent), while government department personnel helped 11 others (18.97 percent) to successfully answer their queries.

When asked whether the example given was typical of their usual need for information, 50 lawyers (86.21 percent) said that it was.

These results suggest that lawyers' in-house libraries are not adequate to meet their needs, and that considerable amounts of time are spent by legal staff visiting sources of information that should be available in-house (See Table 23).

Almost 57 percent (56.90 percent) of the lawyers' queries took less than half an hour to answer, but of them, two thirds took more than 15 minutes to solve. About 22 percent of queries took between one and four hours to find a solution, while another 17 percent only found their answers by searching for between one and three days. Two respondents (3.45 percent) had spent some two weeks "on and off" searching for information on their most recent problem.

In 50 percent of the information queries, an answer was needed immediately, while the answer was needed that day or the next by another 24 percent. A further 19 percent had to have their queries answered within a week, while seven percent of respondents had a month or longer to seek their answers.

More than 89 percent of queries had been successfully answered. Six (10.34 percent) had not been. In four of them, no precedent could be found on the specific points of law. In another, a case had been
### Table 22

**Preferred Receipt Method for Information from Outside Sources: Lawyers**

<table>
<thead>
<tr>
<th>Preferred method of receipt</th>
<th>First choice</th>
<th>Second choice</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>In written form</td>
<td>96.55</td>
<td>3.45</td>
<td>100.00</td>
</tr>
<tr>
<td>By telephone</td>
<td>3.45</td>
<td>22.41</td>
<td>25.86</td>
</tr>
<tr>
<td>By a visit from someone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By a visit to someone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td>1.72</td>
<td>1.72</td>
<td></td>
</tr>
</tbody>
</table>

### Table 23

**Most Recent Information Need and Source of Supply: Lawyers**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Responses</th>
<th>Percentage</th>
<th>In-house Source</th>
<th>Outside Source</th>
<th>Both In-house &amp; Outside Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laws and statutes</td>
<td>18</td>
<td>31.03</td>
<td>7</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Precedents and unreported case law</td>
<td>16</td>
<td>27.59</td>
<td>5</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Financial management</td>
<td>9</td>
<td>15.52</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Matrimonial and family law</td>
<td>6</td>
<td>10.34</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Company law</td>
<td>3</td>
<td>5.17</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Town planning</td>
<td>2</td>
<td>3.45</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>6.90</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Totals</td>
<td>58</td>
<td>100</td>
<td>17</td>
<td>38</td>
<td>3</td>
</tr>
</tbody>
</table>

(29.31%) (65.52%) (5.17%)
transferred from one court to another, and evidence of proceedings could not be found. In the last example, no overseas law could be found on a banking matter. The lawyer concerned was confident that no such law existed because he said "If it did, we would find it." Almost 90 percent of respondents acknowledged that they sometimes found relevant information on a problem after it had been dealt with. Only six respondents (10.34 percent) said that they had never had this experience. In 86 percent of cases, the information had been published recently, or was not yet in print. Several lawyers expressed their dissatisfaction at the slowness of legal publishing sources in New Zealand, which they claimed made it difficult to search exhaustively. Four lawyers however, said it was impossible to search through all the sources that they felt they should, because they were too busy. They said that they were conscious of sometimes making decisions without the relevant information in front of them, but in some cases the amount in dispute did not justify large amounts of time spent on searching.

Nine lawyers admitted not finding information on a topic at the time they were looking for it, because they did not look properly when they were searching. For many of these lawyers, employment of a librarian could help to solve some problems, because time (which is money) could be saved in searching. Another solution which would assist retrieval is prompt publication of case information from the courts. Lastly, using database records from overseas (which only one firm did) would assist in both the finding and provision of overseas information.
When asked to name the sources they used in their searches for information, lawyers seemed to be indefatigable. Only one source of the 13 in the questionnaire seemed not to have been used and that was technical institutes. A typical searching pattern seems to start in the firm's library, go next to the High Court library, and then seek clarification either from an in-house colleague or a friend and/or from a government department. The local council may be consulted or a lecturer from the university. If really up to date information is needed, legal publishers, the Government Printer and bookshops will all be tried. When specialised non-legal information is required, usually for expert witness, lawyers will consult barristers, accountants, actuaries, engineers, architects, doctors, psychologists, town planners and valuers (See Table 24).

Local public libraries are used by some lawyers, mainly for checking death notices in newspapers.

In answering this question the lawyers confirmed the results of Tables 21 and 22. Most lawyers said they would go in person to the various libraries, and bookshops, and to see lawyer friends. They would also make appointments rather than write in the first instance, to see the various consultants. Ultimately however, they would require the information they were seeking in written form.

Of interest was the fact that one lawyer had used the SATIS service on an experimental basis, and he was hoping to persuade his firm to join so that another "information arm" would exist for all staff.
Table 24

SOURCES OF INFORMATION: LAWYERS

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your own firm's library</td>
<td>54</td>
<td>93.10</td>
</tr>
<tr>
<td>The library of your own professional/trade organisation</td>
<td>49</td>
<td>84.48</td>
</tr>
<tr>
<td>A government department or quango</td>
<td>48</td>
<td>82.76</td>
</tr>
<tr>
<td>Your local council</td>
<td>40</td>
<td>68.97</td>
</tr>
<tr>
<td>The Standards Association</td>
<td>16</td>
<td>27.59</td>
</tr>
<tr>
<td>The National Library</td>
<td>9</td>
<td>15.52</td>
</tr>
<tr>
<td>The Scientific and Technical Information Service (SATIS)</td>
<td>1</td>
<td>1.72</td>
</tr>
<tr>
<td>Your local public library</td>
<td>19</td>
<td>32.76</td>
</tr>
<tr>
<td>Someone in a profession similar to your own</td>
<td>48</td>
<td>82.76</td>
</tr>
<tr>
<td>A supplier</td>
<td>21</td>
<td>36.21</td>
</tr>
<tr>
<td>Someone in a university</td>
<td>33</td>
<td>56.90</td>
</tr>
<tr>
<td>Someone in a technical institute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A consultant in private practice</td>
<td>31</td>
<td>53.45</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>17</td>
<td>29.31</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to indicate all sources of information used.

Base: 58 responses
In Upper Hutt, lawyers combined in an informal way to share the resources of each other's libraries, in an effort to save time spent travelling to the District Court library in Lower Hutt or the High Court Library in Wellington.

8.8 USE AND NON-USE OF LIBRARIES

It was clear from the sources of information given by lawyers that they used libraries more than accountants and consulting engineers. However, we still wanted to know whether lawyers used the services of libraries to their fullest extent, and in the case of those who did not use libraries, why they did not do so.

The main reason given by those respondents who do not use libraries was that they had all the information they needed. Five claimed that their "people contacts" were more important than libraries, and another five said that the pressure of work did not allow them the luxury of getting too deeply involved in research. Only one person was disparaging about libraries. He did not go near them because "Libraries are treated like churches - you must be quiet and deferential."

Twenty people had only sometimes got what they wanted when they visited a library. Another 27 claimed that they always got what they wanted from libraries, and a large number added that this was so because they did not go to a library without first checking that the information they required was there.

Only eight respondents had used the inter-library loan service, six of them rarely, although the same number of people were familiar with database searching, and had all commissioned at least one search.
However, had the survey been undertaken just two months earlier, the number of those familiar with database searching would have been halved, because one firm had recently gone on-line, and the younger lawyers in that firm were trying out the new service. Lawyers were more aware generally of the use of computers in information retrieval than either accountants or consulting engineers. They seemed to think however, that such services were too expensive for them to use, and it had occurred to only a few that the computer would be an ideal tool for indexing precedents, and cross-indexing needed references to cases and legislation. They were also unaware of what information was currently available on computer databases.

When asked if they had any unsolved problems in their work, 17.24 percent gave specific examples. There were only two legal problems, one concerned with infringements under the Copyright Act, and the other concerned with ensuring that there was indeed no case law on a particular point. The other unsolved problems concerned how to manage books, paper and files, and how to ensure that publishers' advertising on recently published 'how-to-do-it' handbooks was received.

Ten lawyers (17.24 percent) again brought up a problem mentioned earlier (see Section 8.6 of this chapter) that they did not always have as much documentation as they would like to have when making a decision, and often had to find a solution with the means in hand. Small firms (under five staff in total) often found that there was insufficient information within the office to solve a problem, and they had to decide whether it was worth going beyond 80 percent accuracy, or solving the problem with what was available. One of the main needs to come from this section of the research was that many practitioners need a reference service that could undertake exhaustive searching of case law for them. Currently
there is no such service in Wellington, although the University and High Court Library staff will assist lawyers on the spot with their searching. It is possible that SATIS could develop this service, given sufficient demand.

The main conclusion from this part of the survey is that lawyers spend a great deal of their time looking for information. It suggests that a legal information service could be well supported, because it would save expenditure on publications, and allow lawyers to spend their time in the practice of law, rather than in the information chase.

8.9 INFORMATION SUPPLY IN AN IDEAL WORLD

When asked to nominate the organisation to which a legal information centre should be attached, almost 40 percent of respondents favoured the New Zealand Law Society. Just on 19 percent said that such a centre was not needed. There was a concern among some lawyers that such a service should be available to the legal profession only, so that agreement could be reached on what should be included.

Most of those who favoured the New Zealand Law Society controlling a legal information service, also thought that it should be centred on the present High Court Library funded by and formerly called the Wellington District Law Society Library. It was also important that the location be central and easily accessible at all times. Six lawyers believed that all existing resources (the High Court, the Justice Department, the Supreme Court library, the Court of Appeal Library, and the University Law Library) should be amalgamated into one large library that would provide a unified service available to all.
When asked how information could most easily be made available to them, over one third of lawyers (36.20 percent) favoured having an on-line service. No other strong preference was indicated, and about 20 percent of respondents said that the existing services were adequate and nothing else was needed.

However, the other 80 percent of lawyers would strongly disagree with that statement, because they find many of the existing services inadequate and out of date. These needs were explored for the information that they could provide. The improvements needed were given as:

a) A New Zealand-wide on-line computer database service is needed with access available either in-house (for larger firms) or at High Court or District Court libraries (for smaller firms) - supported by 36.21 percent of respondents.

b) New Zealand Statutes and Regulations should be published much more quickly, and completely updated and annotated editions should be published twice as often as they are now - supported by 27.58 percent of respondents.

c) There should be a central collection and supply system for unreported judgments, instead of unreported cases being held at individual courts - supported by 31.03 percent of respondents.

d) An index (preferably on-line) is needed to the New Zealand Statutes - supported by 29.31 percent of respondents.

e) Prompt publishing and a better quality index are needed for New Zealand Law Reports - supported by 29.31 percent of respondents.

f) The Patent Office should provide an on-line service, with improved indexing and cross-references - supported by 10.43 percent of respondents.
There is some difference of opinion as to whether all on-line records should be full text, or indexes and bibliographical records only. Those from the bigger firms were generally happy to have indexes and bibliographical records because they already had the full texts available in hard copy. However, those in smaller firms would like to have full-text records available on-line, so that all information is available in one form, and expenditure on hardback can be deleted from the budget.

The requests for material to be included on database were very wide-ranging. As well as the statutes and regulations, and unreported cases mentioned above, lawyers wanted all case law, local body by-laws, rates, government valuations, electoral rolls, government statistics and the company register available on-line. Several lawyers suggested that the money required for some of these ventures could come from the present legal publishing firms, who would be forced to rationalise legal publishing and cease the present duplication of effort in some areas, thereby freeing funds to provide service in areas where presently none exists.

The interest generated by these questions and the well defined answers suggest that lawyers are often frustrated in their searches for information, and are looking for more efficient and more effective methods of legal information retrieval. It is of note that many of the frustrations found here were also found in Canada by the Operation Compulex report. There, problem areas included poor standards of indexing, competing law publishers, the lack of comprehensive indexes to regulations, and time-lag problems in publication of statutes, regulations and court decisions.230

With many lawyers being so positive about the need for improved information services, it was of interest to know if they were prepared to help pay the costs of establishing and maintaining services to meet their needs. Over 65 percent were. Just over 43 percent were willing to pay for service on a fee basis, if the payment was tax deductible, while another 22 percent thought that payment should be by annual subscription.

Some 31 percent however, were not willing to pay. Three people said it was just not needed, while another three thought that the New Zealand Law Society and the Justice Department should fund the setting up costs, and then operate a user-pays system. Some lawyers pointed out that a user-pays system could become exclusive, unless the government was prepared to pay search charges for those clients in receipt of legal aid - it was felt that search charges should be able to be passed on to the client, and that lawyers should not have to pay for legal aid case searches themselves.

Small firms generally preferred to pay on a subscription basis, and suggested that there should be a differential fee for smaller firms.

There was no discernible pattern when the willingness to pay for service was compared with age-groups and the size of the firms.

Thirty-six of the respondents in the survey worked in firms that employed ten or more people. They were asked if the employment of a professional librarian in their firm would help them in their work. Two thirds of them said either that their firms were not big enough, or that there was insufficient work to justify a librarian's employment. Only
one sixth of respondents responded positively, and all suggested that a part-time librarian would be helpful, especially to provide indexing services.

Several lawyers had negative images of librarians. Three insisted that for a librarian to be of use, s/he must have a legal qualification, and be "people based and enthusiastic". Another suggested that librarians do not perform a service - "they perpetuate a self-generated need, and are just trying to create jobs for themselves." Yet another suggested that law firms should not employ librarians because lawyers need to do their own research as part of their own continuing education.

Fortunately, the second survey of this thesis proves that librarians can be, and are of great value in law firms, saving both time and money, and providing many services which were not available before their employment. However, it is clear that many lawyers are not aware of the complementary skills that librarians can bring to a law practice, and again, the library profession has a large market here that needs to be convinced of a professional librarian's expertise.

8.11 PERSONAL PROFILES

Of the 58 lawyers in the survey, 54 (93.10 percent) were in partnerships, while only four (6.90 percent) were in practice on their own. All held a Bachelor of Laws degree, and ten people had two basic degrees. Five held a Masters degree, two of them in law. The majority (77.59 percent) were aged between 26 and 40, and only ten percent were aged over 50. Sixty-five percent were partners in their firms, three percent associates, and 31 percent were staff solicitors. The number of years spent in the legal profession varied from one to 44, with over half the respondents having ten years or less experience.
The numbers of people employed in the law firms varied from one to 100.

Lawyers are themselves information searchers, checking the law, and its interpretation in case law, to assist them in making decisions for their clients. They have suggested several ways in which their information searching could be improved in the legal area.

However, it has been shown that lawyers also have significant information needs in general areas, and improvements are needed to ensure easier access to them.

If librarians could demonstrate their expertise in creating databases for lawyers to assist them with their information problems, much could be done towards creating mutual respect for both professions.
Pharmacy has been defined as the art and science of identifying, preserving, compounding and dispensing drugs of animal, plant or mineral origin for medicinal use. Basically this is still true, but because of the advances in synthetic chemistry, pharmacy has become even more scientific. It demands a sound knowledge of the biological, physical and chemical sciences, plus administrative ability. The pharmacist was once described as the handmaiden of medicine; today he is accepted as a guide in his own field. 231

The Pharmacy Act of 1970 states that "Pharmacist means a person for the time being registered as a pharmaceutical chemist under this Act." To register, all pharmacists have to make application to the Registrar appointed by the Pharmaceutical Society of New Zealand. The qualifications for registration prescribed by the Act are:

(1) Every person resident in New Zealand who has attained the age of 20 years shall be entitled to be registered as a pharmacist under this Act who satisfies the Council -

(a) That he has-

(i) Passed such examinations and attended such courses of education and training at an approved school as may be prescribed; and

(ii) Completed such period of practical training as may be prescribed; or

(b) That he is the holder of a recognised certificate and has fulfilled such further conditions as may be prescribed; or

(c) That he is the holder of a certificate or diploma (other than a recognised certificate) granted outside New Zealand after a course of training as a pharmacist which, in the opinion of the Council, is comparable in length and at least equivalent in content and standard to that required under paragraph (a) of this

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subsection, and that he is registered as a pharmacist or under a title equivalent thereto in the country where that certificate or diploma was obtained, and has fulfilled such further conditions as may be prescribed; or

(d) That he is the holder of a certificate or diploma (other than a recognised certificate) granted outside New Zealand and is registered as a pharmacist or under a title equivalent thereto in the country where that certificate or diploma was obtained, and has a level of knowledge of pharmaceutical sciences equivalent to that required under paragraph (a) of this subsection, and has fulfilled such further conditions as may be prescribed.232 233

While the majority of pharmacists practice in retail pharmacy, members of the profession are also employed in hospitals, in manufacturing companies, government departments, and pharmacy education.

One work description of pharmacists says:

The majority of pharmacists work in the retail field and are responsible for the procurement, safekeeping and dispensing of prescription medicines including dangerous drugs, as well as the sale of non-prescription medicines. All such medicines are increasingly being manufactured by mass production, so that the retail pharmacist today is less concerned with preparation, investigation and evaluation of medicines. However, the retail pharmacist has an important role in advising on the use of, and disseminating information about medicines both to the general practitioner and the public.

In the hospital setting the pharmacist has more opportunities for specialisation and is particularly likely to be involved in treatment assessments as part of the clinical team with consultant, nurse, etc. The pharmacist in industry is usually involved in production, quality control and sales promotion; very little pharmaceutical research is carried out in New Zealand.234

9.1 LIBRARIES FOR PHARMACISTS

Only four libraries are listed as having pharmaceutical collections in the 1984 edition of the Directory of Special Libraries and Information Centres in New Zealand. One is the library of the Central Institute of Technology in Heretaunga where the three-year course for a diploma in pharmacy is taught, and two others are the Department of Scientific and Industrial Research Chemistry Division libraries at Auckland and Wellington. The fourth library is that belonging to Adis Press Information Services. The first three libraries are funded by the government, and therefore should be able to offer some services to pharmacists. The Adis Press library reports that its services are "available to staff, medical libraries, members of the medical professional & pharmaceutical industry."236

In addition, there are at least 12 hospital medical libraries throughout the country and the Department of Health library in Wellington which should be able to offer information services to pharmacists.237 The University of Otago too, must have a collection for its pharmacy degree students. This is rather more than the six libraries suggested as being available by Mackay in 1983.238

In her article, MacKay listed the services that could be provided by libraries, including computer-based information services. She pointed out that even if there were not an organised collection with a librarian most hospitals should at least have "a collection of basic

235 P Szentirmay and T.C. Szentirmay, DISLIC, pp. 1-95.
236 Ibid., p. 9.
237 Ibid., pp. 1-95.
pharmaceutical reference texts and a few journals." Although MacKay indicated that "information services are available to pharmacists in New Zealand, through medical libraries", this statement was found to be inaccurate in Wellington, where at least two medical libraries had refused permission to pharmacists to use their resources (See Section 10.6 of Chapter 10).

A recent announcement alerted pharmacists to yet another collection in Wellington. The Pharmaceutical Society of New Zealand, which gave its library to the School of Pharmacy at the Central Institute of Technology in 1960, has now established another small library. It contains:

many of the important pharmacy journals from countries such as Great Britain, Australia and America plus newsletters from Branches of the Pharmaceutical Society of Australia.

The Professional Services Committee of Council is responsible for the library's contents and as part of its brief to provide Society members with professional practice material, the Committee is establishing a resource bank of material which would be of interest and assistance to members. 239

As all members of any profession have a responsibility to maintain their professional competence, it is important that they should have free access to available resources. As discussed in the literature review on lawyers' needs for information, both government and professional societies share some responsibility for providing their practitioners with information (See Section 7.3 of Chapter 7). So do practitioners themselves, so it therefore seems important that librarians should encourage all such efforts.

In discussing the access of the general public to medical information, Dunbar suggested that public libraries spend too little of their budgets on health and medicine, and may therefore refer members of the...
public to the nearest medical library. He reported two case histories where public library resources were inadequate, and the information seekers were referred to medical libraries, only to be told that members of the public could not have access to those libraries.

Dunbar is concerned that because it is "almost always ... members of the medical profession" who write about subjects for the layman, public libraries should not limit their buying to these books. If they do, he reasons, and:

if the medical library is accessible only to members of the medical profession, and if, in the last analysis, the unsatisfied enquirer can only be directed to his own doctor, it is only too apparent that the medical information available to the public is almost entirely under the control of the medical profession.

If then, some pharmacists are having difficulty in getting needed information, whether they present themselves in the library as members of the public or as pharmacists, their professional society and the government that requires them to be registered, should be concerned.

In an effort perhaps, to help pharmacists keep up to date, the Pharmaceutical Journal of New Zealand has from time to time published articles which include suggested sources of information for particular topics. It is to be hoped that the more recently established journal, New Zealand Pharmacy will continue the tradition.

241 Ibid., p. 383.
9.2 THE PHARMACIST'S NEED FOR INFORMATION

Very little research has been published on the needs pharmacists have for information. Two studies have been made on drug provision by community pharmacists. One survey in Northern Ireland showed that only a fairly narrow range of literature resources were held in community pharmacies.

The use of such a limited range of texts may reflect the fact that the questions asked of the community pharmacist can be answered adequately from this resource base. Alternatively, it may reflect the pharmacist's lack of awareness of the value of other printed resources.245

A similar study in the United States found like results.

Connecticut community pharmacists do not possess the drug information references they need to function as drug information providers.246

Later on it was noted:

Of additional concern were the findings related to professional periodical publications in community pharmacies. If the community pharmacist is to achieve status as a drug information provider, he must keep up with the latest drug therapy developments by reading pertinent articles in biomedical journals. If our results reflect the professional journal reading of the community pharmacist, this objective is not being met.247

Another survey of interest was to be carried out from October 1978 to September 1980. The researcher, P.L. Hibberd from the University of Leicester, noted:

Recent developments in the provision of drug information include the establishment of drug information centres,...and the increasing number and availability of computerised data bases for retrieval of published information. This present atmosphere of change poses several important questions which are to be examined. These include (i) are the new methods of


247 Ibid., p. 683.
information provision improving information transfer? (ii) are general practitioners ... benefiting from current changes? and (iii) are the changes beneficially affecting present areas of major concern in medicine? An attempt will be made to identify areas in which present trends in information provision do not appear to be meeting the needs of those requiring drug information.248

Regrettably, no reply was received from Mrs Hibberd in response to a request from me for information on the results of her research.

Hibberd has also undertaken a survey of information provision by the medical information departments of various pharmaceutical firms, and the role of National Health Service drug information centres in information provision.249 Again, no reply was received to a request for further information.

Another survey which may be of interest to pharmacists is one which investigated the acceptance of Prestel as a source of evaluated drug information by general medical practitioners. The survey was carried out at the School of Librarianship at Leeds Polytechnic.250

9.3 DRUG INFORMATION NETWORKS

In 1971 an editorial in the Pharmaceutical Journal commented that:

Pharmacists are becoming increasingly concerned about the supply to them of adequate information about pharmaceuticals. The pharmacy, whether general practice or hospital, is the natural repository for such information, and that pharmacists are aware of that is evidenced by their response to the offer by the Association of the British Pharmaceutical Industry earlier this year to arrange for pharmacists to be placed on the mailing lists of pharmaceutical companies so that they receive information as


and when it is produced by the companies. On the other hand, the Government has been less than helpful over the supply of information to pharmacists. Despite repeated pleas, pharmacists still do not receive Prescribers' Journal which contains much information of value to them. Again, Government would not amend the Medicines Bill so that pharmacists like other so-called "practitioners" would receive data sheets from the pharmaceutical industry.251

This concern of British pharmacists for access to better quality information about drugs led to the establishment of Drug Information Centres in the 1970's. Such centres had been established in the United States since the 1960's, and according to an article by Smith and McNulty, they have been developing and extending their role and level of service over recent years.252 This led:

to the development of a national network which provides the local user with a responsive and sophisticated information service, including access to the most up-to-date literature, specialist information and new product evaluations. ...The network allows for considerable work sharing, exchange of information and cost saving between health authorities in the United Kingdom.253

The national network is based on the concept that:

within each regional health authority, a regional information centre provides support to local information centres at area, district or hospital level. The network, therefore, provides all health care professionals, ... with ready local access to a responsive and sophisticated national service.254

The networks also believe that the provision of printed information is part of their function, and on a regional basis, three types of publications are produced and circulated - current awareness bulletins, review publications, and evaluated bulletins.

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253 Ibid., p. 67.

254 Ibid.
Later in 1982, the Pharmaceutical Journal reported that a Department of Health grant would help establish a computer-based on-line information retrieval system for regional drug information centres.255

Only two years later, a member of the Pharmaceutical Society's Council (Mr D. Knowles) was quoted as saying that a network system linking hospital and community pharmacists and other health professionals, was "vital to the development of clinical pharmacy services."256

The answer seems to have been supplied by the Pharmaceutical Society itself. In a recent issue of the Pharmaceutical Journal it was announced that the Society was about to launch a low-cost:

computer network which will allow pharmacists to link their pharmacy computers direct to the Society's computer to obtain news and information.

Among the services available will be details of drug recalls and withdrawals, important news items, access to the Register of Pharmaceutical Chemists, advice on legal and ethical matters, details of publications and other services available from the Society, and an electronic mail service.257

The Society is currently holding discussions with the Health Department and other pharmaceutical bodies and hopes to extend its range of computer available services. Meantime it says:

No other profession in Britain - or, to the best of our knowledge, abroad - has developed its links within the profession to such an extent.258

258 Ibid., p. 272.
In Australia, Drug Information Centres have been established since the early 1970's. The Pharmacy Department of the Royal Melbourne Hospital was apparently the first. It aimed to provide unbiased, factual information on drugs and produced a Pharmacy Bulletin "to keep medical staff 'up with the latest' in drugs."  

Australia also claims to have established the first national drug information service. Its aim was:

> to give busy clinicians, pharmacists and other health professionals quick and easy access to comprehensive, objective and up-to-date information about drugs, in the interests of better prescribing.

A three tier system was established. Queries were directed firstly to local centres established in hospitals, health centres or retail pharmacies, which were staffed by pharmacists. One or more major centres were to be established in each state with specialist drug information pharmacist staff. A national centre was to be established in Canberra.

A major reason for the establishment of such a system on a national basis was to avoid the costly duplication of effort and resources resulting from provision of a series of unco-ordinated centres throughout the country. For the same reason it is planned to incorporate a poisons information service into the system at a later date.

According to an article in New Zealand Pharmacy:  

> the desirability of a central drug information service for use by pharmacists throughout New Zealand has been under discussion for more than 10 years.


261 Ibid., p. 22.

262 "Does NZ Need a Drug Data Centre?" New Zealand Pharmacy 1 (September 1981): 25.
There are currently two centralised sources of information in New Zealand - the National Poisons and Hazardous Chemicals Information Centre in Dunedin, and a drug reference file updated daily by the Health Department's Division of Clinical Services staff. In addition:

hospital pharmacists have access to a card system offering rapid, abridged information [which was] Established by Tod Webster in Hawkes Bay in 1965 [and] now has 1200 subscribers.263

MacKay reports that in a survey, from January 1981 to September 1982, of Canterbury Medical Library's MEDLINE (an Australian computer-based network) searches, 13.2 percent were on drug related topics. This was comparable to figures available from Australia, where some 14 percent of MEDLINE's use is by pharmacists. MacKay suggests that:

While the volume of on-line searching from New Zealand will certainly increase, it is possible that the proportion of drug-related queries will remain about the same, i.e. around 14%. This has some implications for the development of pharmacy-based information services in New Zealand, particularly for the introduction of on-line search services. I could envisage such services being introduced in Pharmacy Departments of the largest hospital boards, where the volume of use might justify them; and also, possibly in some smaller boards which do not employ a medical librarian, where the Pharmacy Department might become the centre of information services for the hospital.264

It seems however, that the Chemists' Guild may be stepping into the breach. A recent report informs us that PharmaLink, a videotex system, is being trialled over a six month period by pharmacists in Wellington and Otago/Southland, as well as Guild executive councillors.265

Information available on PharmaLink includes the Guild's Product

263 Ibid.
Information Catalogue (previously available only in printed form) which will be updated each day, pharmacy ownership, price control of pharmaceuticals, membership and continuing education courses.

The guild has also held initial discussions with the National Poisons Centre in Dunedin with a view to providing guild members with access through PharmaLink to the centre's extensive poisons and drug interactions database. The system is interactive, enabling two way communication between subscribers. Pharmacists should await the results of this trial with great interest.

The videotex system has no doubt been set up because pharmacists are computer literate, and require only a modem to link their present computer systems with that of the Chemists' Guild. A current conservative estimate suggests that there are approximately 350-450 computers in pharmacies in New Zealand, so that the development of software to enable networking with say the Guild, the Pharmaceutical Society, the Health Department and even other pharmacists would be of assistance to all, particularly those who are in a sole pharmacist situation.

It is to be hoped that in planning new services, the professional bodies in New Zealand will take note of overseas research on similar systems. One such study in Belfast found that doctors used the service more often than any other health care professional group. Nearly half of the requests:

were concerned specifically with drug choice and adverse drug reactions. The results demonstrate the significant contribution of a drug information service to patient care, the interdependence of the pharmaceutical, medical and nursing professions and the need for drug information centres to expand their role into determining drug-use policies and the collation of adverse drug reaction

266 Ibid.
Another study in the United States also found that:

the Drug Information Service is providing useful information to health professionals and that the information is being applied to patient-specific problems.

Both studies found that the use of their service had gradually increased, with more requests coming from doctors than from other professions. It would seem sensible therefore, for the Chemists' Guild to involve the professional societies for doctors and nurses in discussions on the development of PharmaLink.

As with a database for lawyers, it would seem appropriate with New Zealand's small population, to develop a database, suitable not just for one profession, but for all medical and paramedical personnel. The general public too, should have access to such a database through publicly based terminals, probably in local public libraries. If pharmacists were able to persuade other professional groups to co-operate with them to develop such a service, they would achieve much of their aim to provide information on medicines and drugs to all those prescribing, and to the consumers.

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Chapter 10

RESULTS - INFORMATION AND THE PHARMACIST

There has been little published research to date on the information needs of pharmacists, although pharmacists in New Zealand have bought computer systems in an effort to keep up to date with the procurement and dispensing of drugs, as well as to provide their clients with efficient and economic service. The Chemists' Guild is currently experimenting with a videotex information system, and it is hoped that the information in this thesis will help to provide an unbiased view on the information needs of pharmacists which will assist those seeking to provide them.

10.1 IN-HOUSE INFORMATION

Just over half of the 51 pharmacists interviewed thought that the amount of information that they saw each day was about right. Some 23 percent thought that they saw too much, while 15 percent were overwhelmed by it. Just under ten percent of respondents thought that they saw too little.

If something of interest was found in the printed material 50.98 percent would read it and keep it, while 37.25 percent would read it and discard it. Another 11.76 percent would not read it, but would keep it, hoping to read it at a later date. Several pharmacists admitted that although they hoped to read material, they often did not do so, and after about six months, would throw it out.

If something of interest was found in the printed material received, almost 63 percent of pharmacists would read it, and then file it, either
by subject or source of supply (e.g. Health Department, Chemists' Guild, etc.) in folders or box files. These were then kept either in a filing cabinet or on a bookcase or bookshelf. Almost one third however, claimed to make a mental note only of matters of interest, and not keep published material. Several pharmacists kept any journals they received at home. A theme common to most respondents was that when they needed information from their own resources, they could not find it.

Pharmacists kept their information either in their offices or in the dispensary, or in both. Often journals would be in untidy piles, which would be culled when they fell over, or became too unsightly.

Pharmacists did not keep large amounts of information. Almost 50 percent of them (48.65 percent) kept under one metre in total of information, while 10.81 percent claimed to keep no information at all. Nearly 40 percent (37.84 percent) kept between one and three metres of information, while the only information collection of any size was kept by one pharmacist in his office and spread over six metres of shelving.

There was no discernible pattern in the spending of pharmacists on information. Some 13 percent claimed that they spent nothing and that their only sources of information came from New Zealand Pharmacy which is supplied free of charge to all members of the Pharmaceutical Society of New Zealand, the Society's newsletters, and advertising from drug companies. Another 27.45 percent spent only $100 or less, while 35.29 percent spent between $100 and $200. Some 21.57 percent spent between $250 and $500 while only one pharmacist said that s/he spent $1000 per year on information. Pharmacies are usually smaller in size than any of the other businesses of the three professions surveyed so far, and the amounts spent on information were generally much smaller.
10.2 SOURCES OF USEFUL INFORMATION

The questionnaire asked pharmacists to identify the most useful sources of information that they received. Journals and newsletters from their professional organisation (the Pharmaceutical Society of New Zealand) were identified by 72.55 percent of respondents as the most useful source. Then followed journals received on subscription (64.71 percent). The journal New Ethicals was cited frequently by pharmacists as a valuable source. Advertising brochures, mainly supplied by drug companies, were the next most useful source for 45.10 percent of respondents. Material supplied by the Chemists' Guild (a trade organisation) was useful to 39.22 percent, while newspapers were useful to 13.73 percent.

While printed information was clearly the main source of useful information for pharmacists, conversation was also important. Twenty-five percent found that useful information came to them from others in similar business, with other pharmacists, doctors and drug company representatives being given as the main contact people. Another 23.53 percent found helpful information came to them through conversations with others when they were at seminars or meetings (See Table 25).

It was noticeable that pharmacists received so few publications that they could name them all. A few subscribed to business journals, one to the British Economist and another to the Scientific American. Three or four subscribed to Australian pharmacy journals, but the majority of pharmacists had few textbooks other than the obligatory Martindale269 and only one or two New Zealand journal titles, held on average for one

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<th>Source</th>
<th>Number of Responses</th>
<th>Percentage*</th>
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<td>Journals/newsletters from your professional organisation</td>
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<td>72.55</td>
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<td>Journals that your company or organisation subscribes to</td>
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<td>64.71</td>
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<tr>
<td>Pamphlets, brochures or circulars from trade or employers' federations</td>
<td>20</td>
<td>39.22</td>
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<td>Advertising brochures</td>
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<td>Conversations with others in similar business</td>
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<td>25.49</td>
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<td>Conversations with others in similar business at seminars, meetings etc.</td>
<td>12</td>
<td>23.53</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give more than one source of useful information.

Base: 51 responses
or two years. This finding mirrors that of Morrow in Northern Ireland who found that community pharmacists had access to a fairly narrow range of literature resources. Morrow suggested that this could be either because the limited range available adequately answered most questions or because the pharmacists were not aware of other printed resources.\textsuperscript{270}

A similar study in the United States also found that community pharmacists (in Connecticut) had few drug information reference tools and commented that:

\begin{quote}
If the community pharmacist is to achieve status as a drug information provider, he must keep up with the latest drug therapy developments by reading pertinent articles in biomedical journals.\textsuperscript{271}
\end{quote}

If pharmacists in New Zealand aspire to be the community experts on drugs (and they were not asked if this was so) then a much wider range of continuing education in the form of subscribing to and reading biomedical journals would seem to be needed.

10.3 **THE NEED FOR INFORMATION - GENERAL TOPICS**

Government laws, statutes and regulations - Until mid-1984, the Department of Health, through the Pharmaceutical Society of New Zealand, provided pharmacists with relevant laws, statutes and regulations free of charge. When the service ceased pharmacists found that they had to provide this vital information for themselves. The situation had occurred only a short time before this survey was undertaken, and may be the reason that most pharmacists (86.27 percent) said that their most frequent information need was for laws, statutes and regulations. However, it is probably only part of the reason for many pharmacists said that they often referred to the various regulations and in

\begin{flushright}
\textsuperscript{270} Morrow, p. 720.
\textsuperscript{271} Cardoni, Palmer and Grover, p. 683.
\end{flushright}
particular to the Drug Tariff. About one third of those interviewed were relying on a firm of legal annotators to keep them up to date in this area, while others were hoping that the Pharmaceutical Society of New Zealand and the Chemists' Guild would keep them informed through their newsletters of the legislation that they needed to have.

Shop/Office Security - The second most important need that pharmacists had (76.47 percent) was for information on security. Several of the pharmacists interviewed had had their pharmacies burgled at some time, and almost all were concerned that their drugs should be kept in secure conditions. Another concern was that expressed by city pharmacists, who had problems with shoplifting, particularly by schoolgirls.

Automation and new technology - Another high information need of pharmacists was in the area of automation and new technology. Just over 70 percent wanted to keep up to date with developments, as many of them had either installed computer systems or hoped to do so in the not too distant future. This need confirmed the suggestions made in the literature review that New Zealand pharmacists are ahead of many other countries in their use of computers, and in the numbers installed in pharmacies.

Industrial awards - This was another high information need, with just over 70 percent of respondents needing this information regularly. The awards, and/or assistance with the interpretation of them, were usually provided by the Chemists' Guild.

Financial management - Almost 70 percent (68.63 percent) of pharmacists often needed information on the financial management of their firms. Several said that they needed much more than currently came their way.

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while two said that because of their busy, pressured days they left all financial management to an accountant.

Overseas developments - Two thirds of pharmacists liked to keep up to date with overseas developments in pharmacy. About half of them said they often needed information on overseas topics frequently, and the other half needed it sometimes. The most frequent need given was for information on Australian developments, while four pharmacists said that they travelled overseas regularly to keep up with current developments in the retail side of pharmacy.

Staff training - Sixty-four percent of pharmacists had a need for staff training information. Most found their needs answered by the Chemists' Guild, or by the cosmetic companies who provided training in the use of their products for retail staff.

Shop/office fittings and equipment - Information on fittings and equipment was a need of sixty percent of pharmacists who liked to keep up with modern trends for the display of products. The need for information on dispensary fittings was only occasional - usually when a new pharmacy was being built, or a change of premises was necessary.

Professional ethics - Of the 56 percent of pharmacists who needed information on professional ethics, 35 percent needed it frequently. Most depended on the newsletters from the Pharmaceutical Society of New Zealand to bring new matters of ethics to their attention, and any problems in interpretation were usually discussed with pharmacist friends.

Managing employees - Most of the 56 percent of pharmacists who needed information on managing employees would refer in the first instance to
the Chemists' Guild. Only occasionally would help be sought from other sources, usually other local business people or fellow pharmacists.

Effective advertising/marketing - This was another need of 56 percent of pharmacists, in particular those in smaller pharmacies. However, all respondents tried to keep an eye on current advertising and marketing trends.

Small business - Over 50 percent frequently needed information on small business management. General administration was the area mentioned most often.

Statistics - Some 47 percent of pharmacists needed information on statistics at least sometimes. Their main interest was in the comparative operation of pharmacy statistics provided by the Chemists' Guild, which was used as a yardstick to measure their own progress.

Local body by-laws, regulations, etc. - Twenty-seven percent of pharmacists need to refer to local body by-laws. The need is frequent if a move to new premises is contemplated, but is otherwise only occasional.

Records management - Less than 20 percent of respondents needed information on records management. Learning the routines for prescription records was a part of general training for pharmacists, and only a few were always looking for improved ways of keeping records.

Prevention of work related accidents - A few pharmacists were asked for information on the prevention of accidents on work-sites. However, most

273 Chemists' Guild of New Zealand, Survey of retail pharmacy (Wellington : Chemists' Guild of New Zealand) 1985. Confidential to Guild members.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Frequently Needed</th>
<th>Sometimes Needed</th>
<th>Total Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional ethics</td>
<td>35.29</td>
<td>21.57</td>
<td>56.86</td>
</tr>
<tr>
<td>Financial management</td>
<td>49.02</td>
<td>19.61</td>
<td>68.63</td>
</tr>
<tr>
<td>Small business</td>
<td>50.98</td>
<td>1.96</td>
<td>52.94</td>
</tr>
<tr>
<td>Statistics</td>
<td>7.84</td>
<td>39.22</td>
<td>47.06</td>
</tr>
<tr>
<td>Overseas developments in your profession</td>
<td>35.29</td>
<td>31.37</td>
<td>66.66</td>
</tr>
<tr>
<td>Government laws, statutes, regulations</td>
<td>74.51</td>
<td>11.76</td>
<td>86.27</td>
</tr>
<tr>
<td>Local body by-laws, regulations</td>
<td>11.76</td>
<td>15.69</td>
<td>27.45</td>
</tr>
<tr>
<td>Standards</td>
<td>1.96</td>
<td>7.84</td>
<td>9.80</td>
</tr>
<tr>
<td>Managing employees</td>
<td>37.25</td>
<td>19.61</td>
<td>56.86</td>
</tr>
<tr>
<td>Staff training</td>
<td>54.90</td>
<td>9.80</td>
<td>64.70</td>
</tr>
<tr>
<td>Industrial awards</td>
<td>62.75</td>
<td>7.84</td>
<td>70.59</td>
</tr>
<tr>
<td>Effective advertising/marketing</td>
<td>47.06</td>
<td>9.80</td>
<td>56.86</td>
</tr>
<tr>
<td>Prevention of work related accidents</td>
<td>11.76</td>
<td>5.88</td>
<td>17.64</td>
</tr>
<tr>
<td>Shop/office fittings and equipment</td>
<td>39.22</td>
<td>21.57</td>
<td>60.79</td>
</tr>
<tr>
<td>Shop/office security</td>
<td>49.02</td>
<td>27.45</td>
<td>76.47</td>
</tr>
<tr>
<td>Records management</td>
<td>13.73</td>
<td>5.88</td>
<td>19.61</td>
</tr>
<tr>
<td>Automation and new technology</td>
<td>54.90</td>
<td>15.69</td>
<td>70.59</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to give all their information needs

Base: 51 responses
queries in this area related to the provision of first aid kits for shops and offices. (See Table 26 for full results).

10.4 THE NEED FOR INFORMATION - PHARMACY

When pharmacists were asked to indicate their information needs on specific pharmacy related topics, some were as expected, but a few unexpected results were also collected. Information on new drugs was the highest information need cited by 58.82 percent of respondents. It was followed by health education (41.18 percent) where queries from customers were often on nutrition, health foods, vitamins and optics. Pharmacists had noticed an increasing number of questions on herbal remedies and other alternatives to conventional medicine and treatment with drugs.

Both adverse drug reactions and community services/activities were needs of 23.53 percent, while drug dependency information was needed by 19.61 percent of pharmacists. All other needs were below ten percent. However, under the "other, please specify" option, two needs were cited, in each case by just under 20 percent of respondents. The first need was for information on current prescribing and treatment trends which, according to those who mentioned it, was covered only marginally by both New Zealand and Australian pharmacy journals. The second need was for information on a continuing basis on patient liaison and counselling. The pharmacists who said that they had this need were clearly 'people oriented', and spent some time in their shops talking to patients about the correct way to take their drugs, and in some cases, trying to persuade patients to finish the prescribed course of drugs. Two respondents stressed the need to know how to counsel elderly patients, as well as young mothers, solo parents and drug addicts. This need was
an unexpected, but most interesting one, which does not seem to have been a topic covered by recent pharmaceutical journals.

In summary, much of the information needed by pharmacists (See Table 27) is for practical application. Much of it is for immediate use, such as information from the Drug Tariff 274 about whether there is a charge for a particular drug. Other information on security practices, the use of computers, financial management, staff training, shop fittings and small business management is needed on a continuing basis because it affects daily working conditions. It is however, general information which could be made available on a continuing basis through a current awareness service such as that run by the Business Information Service at Wellington Public Library. Alternatively, the Chemists' Guild might be prepared to include such information from time to time on its Videotex service.

Yet another set of information, with many variations on the theme, is needed when the pharmacist is asked for advice by patients and/or customers. The advice requested can range from treatment for allergies and asthma to advice on photographic equipment and poisons information. It seems that few pharmacists have sufficient reference information in their pharmacies to help answer these queries, and some type of back-up service would be valuable.

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## Table 27

**PROFESSION SPECIFIC NEEDS FOR INFORMATION: PHARMACISTS**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse drug reactions</td>
<td>12</td>
<td>23.53</td>
</tr>
<tr>
<td>Community services/activities</td>
<td>12</td>
<td>23.53</td>
</tr>
<tr>
<td>Drug dependency treatment</td>
<td>10</td>
<td>19.61</td>
</tr>
<tr>
<td>Forged prescriptions</td>
<td>5</td>
<td>9.80</td>
</tr>
<tr>
<td>Health education</td>
<td>21</td>
<td>41.18</td>
</tr>
<tr>
<td>Names of product suppliers</td>
<td>2</td>
<td>3.92</td>
</tr>
<tr>
<td>New drugs and/or product formulations</td>
<td>30</td>
<td>58.82</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>2</td>
<td>3.92</td>
</tr>
<tr>
<td>Shop trading practices</td>
<td>2</td>
<td>3.92</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>18</td>
<td>35.29</td>
</tr>
</tbody>
</table>

*The percentages total more than 100 because respondents were free to give all their information needs.*

## Table 28

**INFORMATION SEEKING OUTSIDE THE BUSINESS: PHARMACISTS**

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the past day</td>
<td>10</td>
<td>19.61</td>
</tr>
<tr>
<td>Within the past week</td>
<td>11</td>
<td>21.57</td>
</tr>
<tr>
<td>Within the past fortnight</td>
<td>8</td>
<td>15.69</td>
</tr>
<tr>
<td>Within the past month</td>
<td>8</td>
<td>15.69</td>
</tr>
<tr>
<td>Within the past year</td>
<td>10</td>
<td>19.61</td>
</tr>
<tr>
<td>Not for more than a year</td>
<td>4</td>
<td>7.84</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>51</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>
10.5 INFORMATION SEEKING PATTERNS

a) In-house

Over 88 percent of pharmacists needed access to information at least once a day, and 58 percent of them needed information several times a day. Only six (11.76 percent) needed information once a week or less frequently. Eighty percent always looked for their own information, while over 19 percent sometimes looked themselves and sometimes delegated the task to someone else in the pharmacy. This was an expected result as just on half the pharmacists interviewed were sole proprietors with only one pharmacist working in the shop. In such circumstances the pharmaceutical queries could not be delegated, and nor could customer queries when the expert advice of the pharmacist was requested.

b) Outside Sources

Over 40 percent of pharmacists had sought information from an outside source within the past week, and almost half of them had done so within the last day. Some 15 percent had sought information within the past two weeks, and the same number had done so within the last month (See Table 28). Another 27 percent claimed that they had not had to go outside the firm for information for a year or more. In view of the limited number of reference tools held in most pharmacies, this last result suggested those tools held must be adequate to meet the needs of the 27 percent who rarely sought information outside their pharmacies. This equates with one of Morrow’s findings from a survey of pharmacies in Northern Ireland.275

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275 Morrow, p. 720.
The preferred method of seeking information from an outside source was the telephone, and was used by 96.08 pharmacists. Two other respondents preferred to use their computer systems (3.92 percent). A few pharmacists wrote away for information, and three visited libraries, but because under the Pharmacy Act, a qualified pharmacist must be in charge of a pharmacy at all times\textsuperscript{276} the telephone was the most convenient form of information seeking (See Table 29).

Similarly, the telephone was the preferred method of receiving information, because instant answers were almost always needed to queries from customers who waited while the information was being sought. A few pharmacists commented that use of the telephone could sometimes be frustrating because the person they wanted to contact was out or not available, or the precise information required was not known by their contact.

Written information was always preferred by only four pharmacists (7.84 percent), and this was usually required from the Health Department to confirm a telephone conversation. Three pharmacists (5.88 percent) preferred to use their computer systems in the first instance, especially for drug reaction queries (See Table 30).

### Table 29

**INFORMATION SEEKING FROM AN OUTSIDE SOURCE: PHARMACISTS**

<table>
<thead>
<tr>
<th>Preferred method of seeking</th>
<th>Number of responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write</td>
<td>5</td>
<td>9.80</td>
</tr>
<tr>
<td>Telephone</td>
<td>49</td>
<td>96.08</td>
</tr>
<tr>
<td>Make a personal visit</td>
<td>3</td>
<td>5.88</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>5</td>
<td>9.8</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to indicate both first and second choices

Base: 51 responses

### Table 30

**PREFERRED RECEIPT METHOD FOR INFORMATION FROM OUTSIDE SOURCES**

<table>
<thead>
<tr>
<th>Preferred method of receipt</th>
<th>First choice</th>
<th>Second choice</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>In written form</td>
<td>7.84</td>
<td>9.80</td>
<td>17.64</td>
</tr>
<tr>
<td>By telephone</td>
<td>84.31</td>
<td>3.92</td>
<td>88.23</td>
</tr>
<tr>
<td>By a visit from someone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By a visit to someone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td>5.88</td>
<td>5.88</td>
<td></td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to indicate both first and second choices

Base: 51 responses
10.6 INFORMATION SEEKING EXAMPLES

All pharmacists in the survey were asked to recall their most recent need for information and give details of the way the problem was solved. Results were collated manually and the topics given were put into broad subject groups. The results were most interesting because they brought out a hitherto unexpressed need for information - the day to day checking that a pharmacist may need to do when making up a prescription. The needs included checking for brand names, checking the dosage prescribed, and checking for details of the less commonly dispensed drugs. Martindale and 'New Ethicals'; were the most frequently used information sources.

The next most frequently undertaken task in these examples was checking of the Drug Tariff and New Ethicals to ensure that a drug being supplied was available free of charge. This suggests that the very high need for this information expressed in the need for reference to government regulations and found in Table 26, was somewhat overstated by respondents. Product formulations, checking the availability of stock with warehouses, and shop fittings and/or equipment information were the other main needs.

About 43 percent of the queries had to be solved with information gathered from sources outside the firm (See Table 31) accurately reflecting the information found in Table 28, where 41 percent had sought information outside the firm within the last week.

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277 Martindale : The Extra Pharmacopoeia.

278 New Ethicals is published in April, August and December each year by Adis Press, Auckland. Vol. 23 : no. 2 August 1986.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Responses</th>
<th>Percentage</th>
<th>In-house</th>
<th>Outside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription queries</td>
<td>17</td>
<td>33.33</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Drug Tariff queries</td>
<td>10</td>
<td>19.61</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Product formulation</td>
<td>8</td>
<td>15.69</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Drug availability</td>
<td>7</td>
<td>13.73</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Shop fittings and equipment</td>
<td>6</td>
<td>11.76</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>5.88</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Totals</td>
<td>51</td>
<td>100.00</td>
<td>29</td>
<td>22</td>
</tr>
</tbody>
</table>

(56.86%) (43.14%)
Only eight percent of pharmacists said that the example given of information seeking was not typical, all because the query had taken longer than usual to solve.

Ninety-six percent of the information was needed that day, with 88 percent of it being needed immediately. Solutions for two requests only (4 percent) could be solved later - one within a week, the other within a month.

On the whole pharmacists were satisfied with their information sources and were usually able to find the information they needed. A few said that their main difficulty was in knowing whether a drug could be supplied free or not, and if in doubt, they were willing to give it to the patient and withstand the loss should there be one.

Many pharmacists agreed that there was not always as much information as they would like, so common sense decisions had to be made, or dispensary routines would be held up, and patients kept waiting, which was not acceptable. There was also general agreement that when information was needed pharmacists often did not know where to start, and so finished up being passed from one person to another (or one source to another) which was time consuming, and frustrating if the shop was busy.

Almost 40 percent of pharmacists' queries were quick reference ones which took between two and five minutes to solve. About 17 percent took ten to 15 minutes, while 15 percent took between 20 minutes and half an hour.

The longest search time given was two hours.

The results confirmed the earlier finding that the in-house reference tools available, although small in number, were usually adequate for day
to day needs. However, pharmacists often had queries which had to be referred to outside sources for an answer, and needed a centralised service for economy in time and efficiency. The variety in these queries suggested that it would be difficult for pharmacies to hold sufficient information to enable in-house answers.

Almost 75 percent of respondents admitted finding relevant information on a problem after it had been dealt with, usually on a new drug, but less than 10 percent found this to be a frequent occurrence. Just over half of those who did find relevant information after solving a problem found it in recently published material, but the others admitted either to not looking properly in the sources held, or just not knowing where to find out the needed information. These findings suggest that more frequent publication of titles such as New Ethicals may be needed, or alternatively an on-line database made available through a central source such as a public library, could be searched in response to a telephone call from a pharmacist.

10.7 SOURCES OF INFORMATION

When asked to name the sources they used in their searches for information, it was found that pharmacists went to familiar sources for specific information, but otherwise relied heavily on their friends. Suppliers were used by 92 percent of respondents, and it was usually a drug warehouse or a drug company that was consulted. Concern was expressed that information from such sources could be biased. Other pharmacists, usually friends, were stated to be the next most important source, followed by government departments. Here it was the Health Department that was consulted most often for pricing information. Use of their own library/information collection was given under 60 percent
support, which was unexpected in view of the information seeking examples that showed that pharmacists use their tools to check on prescriptions several times each day (See Section 10.6 of this chapter). This suggests that pharmacists do not think of their reference tools as forming a library - a frequent misconception in the business world.

The local council would be consulted if information was needed on shop alterations or upgrading, and one third of the pharmacists had had this experience.

The Central Institute of Technology library, which has a pharmacy collection, was used by nearly 30 percent of respondents, while nearly one quarter had used their local public library. In the "other" category the Chemists' Guild, hospital pharmacists, and in-house computer systems had each been used by 13 percent of respondents. This question confirmed that most pharmacists sought their information by using the telephone as seen in Table 29, although those who used the public library usually went there when their pharmacy was closed. Consultant advice was most often sought from lawyers, accountants, architects and valuers, particularly when the shop lease was up for renewal, and alterations and/or upgrading were being considered (See Table 32).
Table 32

SOURCES OF INFORMATION : PHARMACISTS

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your own firm’s library</td>
<td>30</td>
<td>58.82</td>
</tr>
<tr>
<td>The library of your professional/trade organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A government department or quango</td>
<td>32</td>
<td>62.75</td>
</tr>
<tr>
<td>Your local council</td>
<td>17</td>
<td>33.33</td>
</tr>
<tr>
<td>The Standards Association</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The National Library</td>
<td>1</td>
<td>1.96</td>
</tr>
<tr>
<td>The Scientific and Technical Information Service (SATIS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your local public library</td>
<td>13</td>
<td>25.49</td>
</tr>
<tr>
<td>Someone in a profession similar to your own</td>
<td>42</td>
<td>82.35</td>
</tr>
<tr>
<td>A supplier</td>
<td>47</td>
<td>92.16</td>
</tr>
<tr>
<td>Someone in a university</td>
<td>1</td>
<td>1.96</td>
</tr>
<tr>
<td>Someone in a technical institute</td>
<td>15</td>
<td>29.41</td>
</tr>
<tr>
<td>A consultant in private practice</td>
<td>9</td>
<td>17.65</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>21</td>
<td>41.18</td>
</tr>
</tbody>
</table>

* The percentages total more than 100 because respondents were free to indicate all sources of information used

Base : 51 responses
When trying to establish whether pharmacists made use of library resources, it was found that about half of them had used libraries, but not very often. The other half said that they did not need to use libraries either because they got their information from other sources - mainly friends and fellow pharmacists - or because they had all the information that they needed.

Generally pharmacists were not aware of library facilities and services and did not know what libraries they were entitled to use. Most seemed unaware that libraries would answer requests by telephone, for they commented that they could not use libraries because they could not leave their shops. Five other respondents thought that libraries would not have the detailed technical information that was needed, and the staff would not be able to help because they would not understand what was wanted.

Yet, of those who had used libraries, only three had not been successful in obtaining the required information.

No pharmacist had ever commissioned an on-line database search, and only three (5.88 percent) had ever used inter-library loan. Most had not ever heard that these services were available.

Five pharmacists, (almost 10 percent of the total number of respondents) had experienced difficulties in using libraries, because the staff were uncaring and unhelpful. One said "Libraries are overwhelming institutions where I feel out of place. I am not aware of what librarians and libraries can do, and the generally unhelpful attitude of librarians makes me feel uncomfortable."
Another said, "We need to be told which libraries we can have access to. I go from place to place, and have to be very persistent to get what I want. Some librarians do not come back with an answer when they say that they will, and others are just plain unhelpful. I need to know where I am allowed to go, and the services to which I am entitled."

Three respondents related unpleasant experiences with library staff, where they were told that they were not entitled to use hospital library services. One had been asked to identify himself, and was later telephoned by the Chief Librarian and told not to use the library as he should get his information from other sources. No other sources were suggested, and the pharmacist felt that both as a taxpayer and a pharmacist, he should be allowed to use the library facilities for reference, even though he might not be allowed loans privileges. He believed that he should be able to use publicly funded facilities without feeling under an obligation and/or that staff were doing him a favour.

A check with the current Librarian of Wellington Hospital revealed that in response to a request from the Pharmaceutical Society of New Zealand some time ago, retail pharmacists were given permission to use all Wellington Hospital libraries on an individual basis, and had simply to request the Librarian's consent before they could start using the facilities.

It would seem that a series of articles in New Zealand Pharmacy written by the numerous hospital and medical librarians on the facilities that their libraries offer to pharmacists, would be both useful and much appreciated.
When asked if they had any unsolved problems in their work, one third of respondents could give examples, although some were general rather than specific. Better management of their time, marketing strategies, and more professional information on drugs and drug abuse were noted as being three on-going problems by several pharmacists. Another common problem was trying to establish a source of supply when a customer had bought a product overseas and wanted to buy it in New Zealand.

One pharmacist said that s/he found it seemed to take increasingly longer amounts of time to answer non-standard questions, and s/he would like to see a central system established where all such requests could be referred.

Another pharmacist called attention to a problem s/he considered was one faced by most pharmacists, but not often discussed. It was the on-going career problem of drug dispensing versus the marketing and selling of cosmetics, films, and other products. S/he suggested that it was difficult to establish a happy balance, and that the dichotomy might never be resolved.

The main conclusion to come from this section is that pharmacists need to be helped by librarians to become familiar with the stock and services that are available in their libraries. There is a particular challenge here as many pharmacists are not able to leave their pharmacies during normal trading hours, and may need face to face contact before they are convinced that a reliable and fast service is available.
10.9 INFORMATION SUPPLY IN AN IDEAL WORLD

When asked to nominate the organisation to which a pharmacy information centre should be attached, only a third of respondents expressed interest. Most believed that this responsibility should belong to the Pharmaceutical Society of New Zealand, although a few suggested that the Society should join with the Chemists' Guild to supply this service. Several respondents believed that a computer service should be the only one contemplated.

When asked how information could most easily be made available to them, some 47 percent favoured a telephone service, while 27 percent preferred a computer service.

The lack of interest in these questions suggests that pharmacists are reasonably satisfied with their existing information sources, although Table 28 showed that more than 40 percent have to seek outside information at least once a week. An information centre where all outside requests could be referred would seem to be the answer to the management of time problem expressed by some pharmacists (See Section 10.8 of this chapter), and the information search problem expressed by others.

10.10 PAYMENT FOR INFORMATION SERVICES

The lack of interest in setting up an information centre especially for pharmacists suggested that the respondents might not be willing to pay for such a service. In fact, 50.98 percent were not willing to pay at all for such a service, mainly because they felt it was not needed, or because they felt that they paid out enough in Society and Guild membership fees.
However, 25.49 percent were willing to pay for information on a fee basis if the payment was tax deductible, while 23.53 percent were willing to pay on a subscription basis. Three pharmacists (5.88 percent) suggested that the Department of Health should help to support such a service because ultimately it was the patient who would benefit, but who would also not be prepared to pay for the service.

All pharmacists under the age of 30 were prepared to pay for information, but there was no other discernible pattern related to both age-group and size of firm.

None of the pharmacies employed more than ten people, so the question about employing a librarian to help them with their work was not relevant. However, a few pharmacists commented that occasional help from a librarian to help them sort out their files would be welcome.

10.11 PERSONAL PROFILES

Of the 51 pharmacists in the survey almost half were virtually sole proprietors (two were managers) with only one pharmacist in the shop. The other half were in partnerships usually with other pharmacists, while one pharmacy was operated by a Friendly Society. Ninety percent of the pharmacies had at least two staff members, with almost 49 percent of them having either two or three staff. The largest number of staff employed in any pharmacy in the survey was eight.

All the pharmacists were of course members of the Pharmaceutical Society of New Zealand (MPS). Only four had degree qualifications. Half were in the age groups between 36 and 50, with the rest spread fairly evenly through the other age groups between 21 and 60. The age of respondents had no significant impact on the answers to the questionnaire. Four of
the pharmacists interviewed had 40 years of experience in pharmacy, and half had 24 years or more.

In general this part of the overall survey showed that pharmacists use a limited number of publications to answer many of their everyday queries, but go to numerous outside sources trying to find other information to satisfy both themselves and their customers. A concentrated marketing effort is needed from librarians to persuade pharmacists that libraries do contain much of the information that they need, and that it is in an unbiased form. More flexibility is needed in opening hours to assist the pharmacist to go to the library when the shop is closed. The alternative would be to offer telephone service for quick reference queries, and follow-up by mail or courier when warranted. Hospital and medical libraries should also be encouraging pharmacists to use their facilities for both reference and continuing education purposes. Perhaps a Branch meeting of Pharmaceutical Society members could be held at Wellington Hospital library to introduce members to its stock and services.

Another possibility for progress would be for librarians and pharmacists to co-operate in the production of a database which could be used directly by those who have already invested in computers, as well as through terminals in local public libraries for those in firms without them. The expertise of librarians is needed in many areas to assist other professions in their development of services. If they are prepared to share their knowledge, there should be mutual benefit for all.
Decision-making should be determined by the interpretation of up to date, accurate and comprehensive information. It follows that the availability of information determines the quality of decision-making. This survey has looked at the information needs of four professions, and their need for and access to sources of information which are used to help solve the queries and problems that arise every day in business.

If librarians and their libraries are not providing for the individual needs of some professional groups, we must institute user studies so that we can be explicit about the needs of potential user groups. Only then can we start to provide the service that is needed, and in so doing, assist in improving the quality of decision-making in the designated groups.

Having surveyed the needs of four groups of professionals, the results were compared to check on any similarities that might be common to all. If there were such similarities, it would be helpful for those providing services for other professions to consider if the results could apply to them too.
When considering the amount of information that came across their desks each day, between one third and one half of all respondents considered that the quantity was about right. A minimum of ten percent in each profession was overwhelmed by the amount received. At least 40 percent of those surveyed in each profession would read and keep material of interest, but at least 11 percent would keep the information after only briefly scanning it. Consulting engineers and pharmacists would often throw such information out without ever having read it, but lawyers and accountants tended to keep it.

Consulting engineers were the only professionals that circulated information of interest to other staff members, and only 6.45 percent of them did so. This was a surprising result, as it is widely accepted by librarians that this practice is a reasonably frequent occurrence in most offices.

It is also a recognised practice that those who do not have access to professionally run information services with trusted staff on hand to locate required material often resort to keeping their own information files. By doing this, staff isolate information from each other, instead of being mutually co-operative in the best interests of the firm. It was clear that this was happening in many firms, and it is possible that this may happen in other professions.

Pharmacists were the only group where it was unusual to find a library. Most members of the other three professions interviewed had some sort of library collection, although there was no common pattern in size or budget. However, it was common to all four professions that between 25 - 33 percent made a mental note only of any interesting information received.
11.2 SOURCES OF USEFUL INFORMATION

The printed word is still the most important source of information for all four of the professions. For the accountants, consulting engineers and lawyers, journals that the firm subscribed to were rated most highly, with material provided by their professional societies coming in second place. For pharmacists, the reverse order applied. Newspapers had some significance as an information source for accountants and lawyers only, while advertising brochures were important to consulting engineers and pharmacists.

Conversation with other professionals in a similar occupation was an important source of information for all the groups, and more so for lawyers than the others. Lawyers often met each other to exchange information over lunch (55 percent of them did so), while accountants also followed this practice, but to a lesser extent (31.5 percent). Continuing education seminars and meetings also provided opportunities for the exchange of information between individuals for more than 20 percent of respondents in each profession.

11.3 THE NEED FOR INFORMATION - GENERAL TOPICS

The most significant information need across the four professions was for access to government laws, statutes and regulations. The average need was almost 85 percent, suggesting that the improvements recommended to the government by Price Waterhouse Associates to create easier and faster access to legislation are long overdue (see Section 7.1 of Chapter 7).

Information on automation and new technology was a need of no less than 60 percent of the surveyed members of each profession, and the next highest need of them all was for information on professional ethics.
Statistics and information on overseas developments in the professions were needs of a minimum 50 percent in each, while small business information needs were common to almost 40 percent of all.

It was of note that while all four professions need access to statistical information, much of which was available from the Department of Statistics, not one respondent was aware that the Department had a computer database (INFOS) that was publicly available.

On the whole, consulting engineers and pharmacists had more wide ranging information needs than accountants and lawyers in areas of general information, but it was evident that the four professions had a high need for information in areas that are common to many businesses and professions.

11.4 THE NEED FOR INFORMATION - PROFESSIONAL TOPICS

The need for information on professional topics throughout all four professions was not nearly as great as that needed in the general information area. While a few problems in finding information in their professional areas were expressed, it seemed that far more problems were experienced when all four groups tried to find answers for more general topics. In firms without a library most individuals kept their own files of information apart from the general information collection. This meant that one person could need information held by someone else, but unless s/he happened to ask the person who held it, s/he would not know it was in the firm, and would spend time chasing it from outside sources.

Pharmacists were the profession who most needed access to instant information, because their queries came from customers who often waited in the shop while the answer was being sought. They also needed
information on a much wider range of professional topics than did the other three professions. They were too, the profession that had the least in-house resources, but because of wide-ranging queries, needed most help with back-up information.

11.5 INFORMATION SEEKING PATTERNS

a) In-house

Over 78 percent of the survey respondents needed access to information at least once each day, while 55 percent needed to find information several times each day.

Consulting engineers delegated their information searching more than the members of the other professions, but only two of them (6.45 percent) always delegated their searching to more junior members of staff.

Pharmacists often had no one to whom they could delegate this work, being the sole professional in the shop.

It was of interest to find that on the whole the four professions did not conform to the recognised pattern of partners and senior staff members delegating information searching to more junior staff. This is understandable in small firms, but it is surprising to find it in the larger firms - particularly those of accountants and lawyers. It suggests that partners and senior staff take responsibility for many topics, and do not delegate very much as a matter of policy. Yet with over half of all respondents needing access to information several times a day, it would seem that senior managers could benefit a great deal in time savings by delegating such searches.
b) **Outside Sources**

At least 40 percent of the respondents in all four professions sought information or assistance from sources outside their business at least once a week. Consulting engineers had in fact a more frequent need and 50 percent required such help once a week or more often.

There was a clear preference among three groups—accountants, consulting engineers and pharmacists for communication by telephone, which offers immediate personal contact. Lawyers preferred to make a visit to a place where they thought that the information they needed could be found, which suggests a commitment to confidentiality. However, use of the telephone was for them the second most popular method of information seeking outside the firm.

However, although all professions used the telephone to make contact with information sources, accountants, consulting engineers and lawyers all preferred to receive their information in written form. Even if the query was answered by a telephone call, at least 80 percent of all three professions (and 100 percent of the lawyers) required written confirmation.

Only four pharmacists (7.84 percent) always preferred written information, while for 88.23 percent, telephone information was acceptable, and deemed necessary so that customers were not kept waiting. Although quite a few of the pharmacists used computer systems, only 5.88 percent of respondents preferred to use their computers when in-house sources did not answer their needs, suggesting that either more training or additional services may be needed in this aspect of computer use.
11.6 INFORMATION SEEKING EXAMPLES

About 60 percent of all the information requests received by the four professional groups took less than half an hour to answer. Members of all the groups gave examples of longer searches. It was notable that the longest search undertaken by a pharmacist took two hours, while accountants, consulting engineers and lawyers each had one or two searches that had taken from two to three weeks searching to find an answer. Only consulting engineers (two of them) had personally gone overseas to find a solution.

More than 85 percent of the examples given by respondents were typical examples, and were given in response to a question which asked them to cite the last time they needed information, and how they solved the query.

About 50 percent of the queries had to be answered immediately by accountants, lawyers and consulting engineers, but pharmacists had to answer 88 percent immediately. Accountants and consulting engineers could take at least a week to answer 20 percent of their queries, and up to a month for another 20 percent. Lawyers and pharmacists however, were under more pressure to answer quickly. While about 20 percent of lawyers' queries had to be answered within a week, only seven percent could be left for a month before a solution was needed. Only four percent of all pharmacists' queries could be held over to be answered after the day on which they were received, suggesting that it was this professional group that was under most pressure to provide immediate answers, and explaining why they had to rely on the telephone to find the answer to queries that could not be satisfied by reference to in-house sources.
All the groups had a success rate that was not lower than 89 percent, which was commendable, but some queries clearly took a long time to solve, and the most up to date and easy ways of solving them were not known to the respondents.

At least 75 percent of the respondents in all four professions had found relevant information on a topic after they had had to make a decision on it. This was a less frequent experience for pharmacists than for the other professions.

Accountants and consulting engineers shared a common experience with over 69 percent of each profession not finding the relevant information because they did not have adequate retrieval systems for information they knew to be in the office, and so could not locate a particular item. Accountants and consulting engineers also both found solutions to previous problems in recently published material around 30 percent of the time, suggesting that airmail subscriptions, database searching and subscribing to abstracting journals would all help to give both professions access to up to date information more quickly than they are getting it at present.

Pharmacists, and lawyers even more so, often needed information that had either been published very recently, or was not yet in print. Lawyers had a problem with the publication of case law being delayed, and another where case law was not reported in the literature at all. Pharmacists would understand the problems as information on new drugs was often not made available to them, but was made available to doctors and hospital pharmacies. The solutions seem to be the same for both professions - faster publication of the latest professional developments, and/or supply of that same information on database.
These conclusions combine to show that the first hypothesis of this thesis, (see Section 2.1 of Chapter 2) that many people in business in New Zealand do not know how to obtain correct, current and comprehensive information, is at least partly correct.

11.7 SOURCES OF INFORMATION

There were some similarities in the sources approached by the four professions. All four made high use of government departments for information - more than 82 percent of accountants, consulting engineers and lawyers used them, as did almost 63 percent of pharmacists. Consulting engineers and pharmacists went to suppliers for information on their products more than they went to any other information source.

In-house libraries were the starting point for information searches for 93 percent of lawyers, but although about 83 percent of accountants and consulting engineers used their own libraries, other information sources were used more. Only 58 percent of pharmacists claimed to use their own libraries for information, but as discussed in Section 10.6 of Chapter 10 it was clear that they used their textbooks and other handbooks to check on prescriptions every day, so that their use of in-house library books was almost certainly greater than the results showed. It follows that pharmacists do not think of these books as part of their library resource, but rather as day to day working tools, which do not form part of the resources of a presumably, more erudite library collection.

While written sources of information were clearly the most important, verbal sources, through conversations with others in their profession, were also of significance. Eighty-two percent of lawyers and pharmacists sought information in this way, as did 75 percent of
accountants and 64 percent of consulting engineers. In an early question in the questionnaire (Question 4 - see page 1 of Appendix E) when respondents were asked about the part conversations played as an information source, between 20 and 50 percent said that they gathered information in this way. In this later question, it seemed that conversation played a much more important part than was at first admitted.

11.8 USE AND NON-USE OF LIBRARIES

Many members of each profession did not use libraries, usually because they believed that they had all the information they needed, or because they got it from other sources. Consulting engineers and lawyers used libraries more than accountants and pharmacists, but even so, they tended to use libraries only when they were reasonably sure that they would find there the information they wanted.

Respondents from all four professions spoke of making compromise decisions because of time constraints, but their perspective related to their own time, and it did not seem to be recognised that the information seeking task could be delegated to a librarian elsewhere (i.e. not on the premises).

It should be cause for concern among librarians that so few business people know of the interlibrary loan service, and even less are aware of the advantages of on-line database searching. This conclusion shows that the second hypothesis of this thesis (see Section 2.1 of Chapter 2) that many people in business do not know about library services such as inter-library loan and on-line searching by computer, has been shown to be correct. It suggests that librarians are not reaching a large sector
of the community in any public relations efforts that they might be making to keep the public informed on current services.

One way that is suggested as a first step in finding solutions to this problem is for the Continuing Education Department of Victoria University of Wellington to combine with lecturers from the Department of Librarianship, and librarians of special libraries in selected disciplines, to give short courses on sources and resources of information for a specific profession. In addition, librarians could be invited to contribute articles on their special libraries and collections, and the access and services available, to the professional association journals.

These two measures would help to begin the dialogue that should result in mutual benefit for librarianship and each of the professions involved.

11.9 INFORMATION SUPPLY IN AN IDEAL WORLD

The majority of respondents were not very interested in which organisation should supply information for them in an ideal world. Between 33 and 40 percent of each profession nominated their professional society, except for the consulting engineers, who nominated the Ministry of Works library, which took over the Institution of Professional Engineers New Zealand collection many years ago, and offers a continuing lending service to engineers in return.

Consulting engineers and pharmacists showed most enthusiasm for improved information services, and indicated that they would support a telephone call service to an information centre, provided they only had to give their request to one person, and not speak to several people about their
request. Consulting engineers, lawyers and pharmacists also gave some support to computer services, and seemed to be more aware of information possibilities in this field than did accountants.

11.10 PAYMENT FOR INFORMATION SERVICES

Approximately two thirds of accountants, consulting engineers and lawyers would be willing to contribute towards the cost of an information centre, if one were set up, either by payment of an annual subscription, or on a fee for use basis, with payments being tax deductible. In each of these three professions about one third of respondents were not willing to pay for such a service.

Just under half the pharmacists were willing to pay for an information centre while just over half were not willing to pay at all.

On the whole respondents were not really enthusiastic about employing a librarian, whether full-time or part-time, to help them search for information. Mostly respondents thought that there would not be enough work for a librarian to do, or that it would not be possible to justify the cost of employing one. A few respondents insisted that a librarian would need a relevant degree in accountancy/law/engineering. However, there was some support for the employment of librarians, usually on a part-time or contract basis. Pharmacists, whose firms were too small (under 10 staff) to be included in the results for this question, would in some cases, welcome the help of librarians to assist them to arrange their material for easy retrieval.
11.11 SUMMARY

The conclusions common to all four professions were:

a) At least 40 percent of the respondents would keep either the original or a copy of material of interest in personal files.
b) Material of interest was not usually circulated to other staff.
c) At least 25 percent of the respondents made a mental note only of any interesting information received.
d) Printed information is the most important source of information received.
e) Conversation with others in similar business plays an important part in the exchange of information, but is less important than the printed word.
f) Access to government laws, statutes and regulations is the most significant information need.
g) Information on automation and new technology is the second most needed information subject.
h) Professional ethics information ranked third in information needs.
i) The need for statistical information ranked fourth equal as a need.
j) Also ranked fourth equal was information on overseas developments in each of the professions.
k) Fifty-five percent of all respondents looked for information several times each day.
l) It was not a common practice for respondents to delegate their information searching.
m) At least 40 percent of all respondents sought information assistance from sources outside their firm at least once a week.
n) Some 60 percent of all information queries took less than half an hour to answer.
o) Some 50 percent of all queries had to be answered immediately.
p) Eighty-nine percent of queries were successfully answered.
q) At least 75 percent of respondents had found relevant information on a topic after they had dealt with a problem.
r) Over 60 percent of respondents used government departments as a source of information.
s) The main reasons that respondents did not use libraries were that they believed that they had all the information they needed, and/or that they got their information from other sources.
t) Respondents sometimes had to make compromise decisions because of a lack of time to do exhaustive searching.
u) Very few respondents were aware of the inter-library loan service.
v) Very few respondents were aware that national and international databases could be searched using on-line computer technology.
w) Almost half of the members of each profession would be willing to contribute towards the cost of an information centre if it were set up to answer their needs.
Chapter 12

CONCLUSIONS

As the Introduction discussed there is a need for research into the provision of improved information services in the business world. This thesis has looked at the needs of four professional groups - accountants, consulting engineers, lawyers and pharmacists. Chen and Hernon define such groups as "special populations" and believe that further research is required to study their information needs. They continue:

These groups often had special requirements of information providers divergent from those of the dominant majority. The exact nature of these needs (and of library responsiveness to them) can only be answered through further research. Since we cannot serve the public until we know the public, such research is of urgent necessity.280

Chen and Hernon also suggest that:

Further studies of information needs must be launched. These should encompass work and non-work situations, and explore alternative information needs.281

The research for this thesis set out to investigate how members of the four named professions were getting the information they needed, the problems involved in so doing, and their preferred method of information supply.

280 Chen and Hernon, p. 124.
281 Ibid., p. 121.
12.1 IN-HOUSE INFORMATION

At least 40 percent of all respondents keep either the original or a photocopy of material of interest that they find in the literature they see in their offices. This material is then kept in personal files usually only accessed by the respondent. This reasonably frequent practice defeats the common purpose of the firm to provide mutual support by the exchange of information. The problem seems to be one of trust — if there is no-one in a firm with responsibility for keeping and retrieving information, then one can rely only on oneself to keep and supply material of interest. While members of firms consult each other when they need information, they may not consult the one member of the firm who has the answer tucked away in his/her personal filing system. Searching for information then duplicates effort, is time-consuming, and may not result in correct, current and comprehensive information being found. The answer to this problem is to employ a librarian who can be trusted to both store and retrieve the information, and supply additional material on the topic from both in-house and outside sources.

The results suggest that at least 25 percent of respondents have given up storing their own information, perhaps because, as several suggested, the frustration of not being able to find an item when it was needed, made the effort of clipping and storing not worthwhile. These respondents relied on their memories for information recall. This practice can also defeat the mutual support network of a firm, because the loss of one such staff member through illness, accident or retirement, could result in a large gap in information resources.

There is a third result that also suggests that mutual support networks in the firms of the members of these professions are not being given the attention they deserve. Consulting engineers (and only 6.45 percent of
them) were the sole professional group who circulated material of personal interest to them to other staff members for their information. It is accepted that this practice is a frequent occurrence in most business offices, but these results suggest that at least among four professions, co-operative sharing of information may not be common.

12.2 SOURCES OF USEFUL INFORMATION

Of the various sources available to the four groups of professionals within their offices, printed information was the most important. Journals received on subscription, and material provided by their professional societies were the two most important printed sources of information for all.

Conversation was also an important information source. It included seeking advice from in-house colleagues, seeking advice, often by telephone, from friends and acquaintances in the same profession, conversation at social functions, continuing education seminars, and privately, often over lunch.

This finding confirms those of Hanson who reported that "scientists prefer to consult people rather than documents" and suggests that it is not only engineers who apply the law of least effort in their choice of information sources.

It also seems to confirm Bhat's finding in a study of the information requirements of small entrepreneurs where "institutional and human

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282 Hanson, p. 70.
283 Gerstberger and Allen, p. 277.
12.3 THE NEED FOR INFORMATION - GENERAL TOPICS

Accountants, consulting engineers, lawyers and pharmacists were found to have a common need for five types of information. In descending order of importance they were:

a) Government laws, statutes and regulations.
b) Automation and new technology.
c) Professional ethics.
d) Statistics.
e) Overseas developments in the profession.

There is a clear need for improved access to all five types of information. Recent recommendations have been made to the Government to improve the accessibility and availability of legislation, including the creation of a subject index to legislation (see Section 7.1 of Chapter 7), and the findings of this survey suggest that librarians should be supporting and assisting with the early implementation of the recommendations.

Professional ethics information is already distributed to practitioners by each of the professional bodies. However, problems seem to arise in the interpretation of the codes, and further information on the practical application of the code would clearly be of assistance to members.

The difficulty experienced in obtaining statistics was not too great — rather practitioners were not always sure that the statistical information they wanted was in fact available. The newly created Marketing Division of the Department of Statistics will no doubt shortly start to disseminate information on the available statistics which will help to eliminate this gap. It should also create greater awareness of the INFOS statistical database, and the manipulation programs that are available through it.

With both automation and new technology, and information on overseas developments in the various professions, librarians have opportunities to close the knowledge gaps by providing information to appropriate publishers, including the professional bodies themselves. This is one of the examples where librarians need to market their services, and provide information before it is requested — selective dissemination of information at the sharp end. The implication for librarians is aptly described by Brodribb, who said that librarians:

may need to leave their libraries and go out into industry. They must become aware of the problems which face business in order to recommend appropriate sources of information. They must learn to assist particularly the smaller firm to formulate its problems before help can be found through information. 285

12.4 THE NEED FOR INFORMATION — PROFESSIONAL TOPICS

While accountants had quite specific needs in the professional area, needing mostly information on taxation and auditing, the other three professions had quite wide ranging needs, which differed according to the work in hand, and did not overall create a discernible pattern.

285 Brodribb, p. 172.
The main needs for all four professions, while often cited as being profession specific, were in fact general information needs. The professions were reasonably well informed on the location of professional information, but they were not so well informed on where to find general information.

Work on several fronts would seem to be necessary to change this situation. Firstly, the professions need to be informed of the resources available in public libraries, and a concerted effort from public librarians across the country to inform their many publics of their valuable resources would be a start: Newspaper columns, articles in professional journals, notices of library facilities with rates demands, and librarians on talkback radio could all feature in market strategies.

For Wellington business, much greater marketing of services is needed from the Business Information Service at Wellington Public Library and the Scientific and Technical Information Service (SATIS) of the National Library. These services could help to fill the information gaps, especially for smaller firms, by not only providing information on demand to answer specific requests, but also providing up to date current awareness services across a broad range of topics.

In addition it should be possible for the professional organisations to support continuing education courses, either with the assistance of the Victoria University of Wellington Continuing Education Department, and/or the Department of Librarianship. Such courses could look to inform participants of the information sources and resources available to assist them in the decision-making involved in their work.
12.5 INFORMATION SEEKING PATTERNS

a) In-house

Fifty-five percent of respondents needed access to information several times each day, and another 23 percent needed information at least once each day. It was expected, at least in the bigger firms, that senior staff members and partners would delegate their information searching to more junior members of staff. It was believed that this was a common practice, as was found in Canada by the Operation Compulex researchers. However, it was found that this was not common among the respondents. Possible reasons for this are that practitioners keep copies of handbooks, legislation, and other often required information in their rooms, or that senior members of staff take responsibility for large areas of work, and do not delegate information searching. The matter could be an area for further study, as results would be of interest to continuing education experts, as well as to information providers.

b) Outside Sources

Information sources outside the firm were consulted by at least 40 percent of the respondents at least once a week. Three professions - accountants, consulting engineers and pharmacists preferred the personal contact of the telephone, while lawyers preferred to visit the place where they thought that the information might be found.

The result for consulting engineers again confirms Hanson's comment that scientists (including engineers and technologists) "prefer to consult people rather than documents".  

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286 Operation Compulex, p. 8.

287 Hanson, p. 70.
In examples of typical information needs it was found that 60 percent of all queries took less than half an hour to answer, but 50 percent of them had to be answered immediately. While 89 percent of all queries were successfully answered, some of them took a long time to solve. It was also admitted that many decisions were made with the respondent knowing that s/he probably only had 80 percent of the available information, but had no further time to spend before making the decision. This suggests that those respondents who can, should be delegating information searching to more junior staff for economy of time.

In all four professions, 75 percent of respondents had come across relevant information on a topic after they had made a decision on it. Often, respondents knew that the information was in the office, but they could not find it. At other times, the needed information (on for example a new drug, or a new case decision in law) was not yet available in published form.

The solutions to the problem of being able to find information when required suggest that either the firm should employ a librarian to file and retrieve information for them, or that they should use the expert librarian services of either the Business Information Service or SATIS.

The problem of encouraging publishers to publish promptly is more difficult to solve. However, if the recent recommendations made to Government (see Section 7.1 of Chapter 7) to improve the accessibility and availability of legislation are implemented, pressure from lawyers to extend the improved services to include prompt publication of case law might help to achieve that desirable result.
12.6 USE AND NON-USE OF LIBRARIES

Brodman pointed out that the practitioner:

hardly ever thinks of the public library as the source of data for his administrative and operating decisions...The practitioner expects to obtain his help from nonpublic libraries, especially from academic, special, and personal collections.²⁸⁸

However, it has been shown that only a small number of accountants in South Africa, Australia and New Zealand use their accounting society libraries and that accountants have been surprised to find that the librarian can help with professional problems (see Section 3.3 of Chapter 3). The results have shown that lawyers use libraries more than the other three professions, but that few of the respondents use basic library services like inter-library loan, and hardly any were aware of on-line database searching and how it could help them.

Again we see a need for librarians to market their services. There is also another need, and that is for librarians to consult with other professions to improve and develop appropriate information systems located in convenient places, so that truly relevant services are developed for those who need them.

12.7 INFORMATION SUPPLY IN AN IDEAL WORLD

There was little evidence to suggest that the professional practitioners in this survey had considered the question of adequate information provision, from a trusted source, run for the benefit of all members of their profession, wherever they might be. The accounting profession, when considering its future in the year 2000 and beyond, did not include the need for information in its deliberations.²⁸⁹ The legal profession

²⁸⁸ Brodman, p. 152.
²⁸⁹ New Zealand Society of Accountants, Horizon 2000 - And Beyond, pp. 1-128.
has not been able to establish the need for a computerised legal information retrieval system, although it hoped to do so. Some computer systems used in pharmacies can provide some basic drug information, but few pharmacists rely on them for their information needs.

The main need of all respondents has been established as being a quick reference service with immediate accessibility. Fast service and easy accessibility should be available to all practitioners, no matter where they live or where their firm is located. This need for everyone to have equal access to information also has to be considered in relation to the size of the firm. If payment has to be made for service, and the current user-pays philosophy would seem to ensure that this will be so, then fees must be set so that the sole practitioner can afford to use the service with as much freedom as the practitioner from a firm with 100 on the staff.

It follows that if ideal information centres and/or sources are to be established to meet the needs of all practitioners, there will need to be co-operation from professional societies, from the practitioners, from society as a whole, and from librarians.

Brodman suggests that there should be:

several different approaches to solving the problems of the need of the professions for informational materials. It is unlikely that one monolithic, massive and unyielding system will work equally well for lawyers, engineers, architects, businessmen, hospital administrators and nurses. Indeed, there is some question whether the same methods are always necessary or desirable within a single profession. ... investigation of many different approaches should be made...

Brodman also believes that the government should:

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290 Brodman, p. 155.
arrange a system whereby any practitioner anywhere can obtain the information he needs in his profession within a reasonable time and for a reasonable cost. This latter would include payment for such services to the already existing libraries and other resources that can or will answer the needs of such practitioners.\(^{291}\)

With changes in information provision, such as acting as an agent to put a practitioner in touch with a consultant, education for librarianship will also have to change. Marketing strategies and survey techniques are needed to strengthen the position of libraries, and enable them to compete with other information providers. After all, as Chen and Hernon declare:

> Having services that no one knows about is as good as having no services at all.\(^{292}\)

### 12.8 SUGGESTIONS FOR FURTHER RESEARCH AND DEVELOPMENT

**a)** Practitioners have a responsibility to keep up to date in their area of practice. Professional societies have an obligation to assist with continuing education to help practitioners achieve that end. As there is a gap in the knowledge of practitioners on economic and efficient information access, it is suggested that steps should be taken by the establishment of an advisory committee in each of the professions, to seek appropriate assistance.

**b)** It is suggested that the New Zealand Library Association, and in particular the Special Libraries and Information Services Section, should offer co-operation and expertise to the four professions to assist them to obtain practical help to solve their information problems.

\(^{291}\) Ibid.

\(^{292}\) Chen and Hernon, p. 118.
c) It is suggested that Victoria University of Wellington Department of Librarianship, in conjunction with professional societies, and the University Department of Continuing Education, should provide training courses from time to time in information sources and resources for particular professions. It is further suggested that initiatives should be taken to provide the courses in several centres throughout New Zealand.

d) It is suggested that SATIS and the Business Information Service at Wellington Public Library should actively promote their services to the professions, and in particular to the small firms and sole practitioners.

e) It is suggested that the National Library should initiate a conference of accountants, lawyers, and business people, with representatives from various professions and the general public, to investigate the need for and feasibility of a computerised legal information retrieval system.

f) It is suggested that the Pharmaceutical Society of New Zealand should initiate a conference of members of various pharmaceutical groups, and representatives of the medical, nursing, and other paramedical professions to investigate the need for and feasibility of a computerised drug information system.

g) It is suggested that information services to lawyers could be upgraded if the New Zealand Law Society were to examine the provision of information through High Court libraries, and with the assistance of librarians, create standards for their operation.

h) It is suggested that more information is needed on the law collections available in District Court and government
department libraries, and how this material could be made more readily available to both lawyers and the public.

i) It is suggested that the New Zealand Library Association possibly in conjunction with the Department of Librarianship of Victoria University of Wellington, should make representation to the accountancy, law, engineering and pharmacy faculties at the various universities, in an effort to have an information course included in each of the appropriate courses of study. The Central Institute of Technology in Heretaunga, where the Diploma in Pharmacy course is taught, should also be included in these representations.

j) It is suggested that in all the deliberations, care should be taken to ensure that all information is available equally to all people, and that in no way should information be restricted only to those who can afford to pay for it.

It is clear from this survey that the provision of information to accountants, consulting engineers, lawyers and pharmacists falls short of the ideal in many and varied ways. It has been suggested that librarians must be actively involved in working to increase the awareness of the professions to information resources, so that we all benefit from the results of more informed decision making. That means that we must adopt a marketing approach.

This requires identifying the potential customer and his needs, and preparing information specifically for him; information, that is, not just about what is in the library, but about how he can get at, and use, the awesome resource. 293

We must tailor our services to the needs of specific target markets, remembering that currently libraries are only one of the many information providers available. The challenge is to understand and accept information-seeking patterns, and adapt our libraries and their services to meet them.
SURVEY 2

A SURVEY OF

NEW SPECIAL LIBRARIES
In 1934 Ralph Munn and John Barr surveyed libraries in New Zealand, and made suggestions for their improvement. The special libraries mentioned in the report are few. They are the libraries of the theological colleges, the Royal Society, various professional associations and the special collections held by some public libraries.

In 1960, another survey of library resources in New Zealand was conducted by Andrew Osborn. He said:

In the network of a country's book resources, special libraries can and must make an extensive, varied, and really vital contribution...they bring tremendous strength in depth...they collect in an astonishing range of fields some of whose infinite variety is already apparent in New Zealand. ... Despite this variety, special collections must multiply over and over again before a sufficiently broad foundation will have been laid for the country's book resources in specialised areas.

He also said that:

apart from the Department of Scientific and Industrial Research, and a comparatively small number of medical, society, government and other libraries, the special-library movement of the country has yet to gain momentum.


296 Ibid., p. 12.
Osborn noted that only 128 institutions reported having libraries in the 1959 directory, *Special Libraries and Collections*. Subsequent editions of this directory are a measure of the growth of special libraries in New Zealand. The 1968 and 1974 editions listed 167 and 166 special libraries and collections respectively, indicating perhaps, a period of consolidation for existing resources. However, by 1981, when the fourth edition of the directory was published, the number had almost doubled to 314. Three years later a further 71 special libraries and collections were shown to exist when the 1984 edition had 385 listings. In addition, I know of at least 18 other libraries in the Wellington City area alone, six of which began in 1985, which are not listed in the directory.

The increase in the growth of special libraries was marked in two other notable ways. The first was the appointment in 1970 of Mr Paul Szentirmay to the staff of the Library School in Wellington. An article by Peters reported that Szentirmay had "particular responsibility for


the study of special libraries.\textsuperscript{302} The second development occurred towards the end of 1971, when the Council of the New Zealand Library Association approved the formation of a Special Libraries Section. Peters reported that the means was "now available whereby librarians may be encouraged and helped in many ways."\textsuperscript{303}

Although Osborn's report stated that the New Zealand Library Association should do all it could "to aid in the proliferation of special libraries",\textsuperscript{304} Peters pointed out that the events of 1970 and 1971 were only a beginning. She went on:

\begin{quote}
Much remains to be done in order to bring existing special libraries up to reasonable standards of finance, staffing and service, and to initiate more of their clientele into their use and potential. There is unlimited room for expansion in the special libraries field.\textsuperscript{305}
\end{quote}

In 1986, it is clear that some expansion has taken place. Small special libraries are increasing, although many of them are staffed by one person only. An analysis of the 385 entries in the 1984 DISLIC\textsuperscript{306} shows that 112 libraries, or 29 percent are staffed by one person only. This figure cannot be regarded as accurate in view of the large number of entries for public libraries and the National Library, which hold special collections, but do not in themselves constitute special

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\textsuperscript{302} A.E. Peters, "Why a Special Libraries Section?" \textit{New Zealand Libraries} 34 (December 1971): 252-255.
\textsuperscript{303} Ibid., p. 255.
\textsuperscript{304} Osborn, p. 64.
\textsuperscript{305} Peters, p. 255.
\end{flushleft}
libraries.

Hissink's analysis of the data collected for the 1981 DISLIC\textsuperscript{307} showed that:

the libraries of government departments are the oldest and still dominant category of special libraries in New Zealand, with the more recently developed libraries of commercial, industrial and quango organisations being roughly equally represented among the remainder. The most notable characteristic of special libraries in New Zealand is their small size - typically, they are small sole-charge or two-person libraries. Under the present political and economic climate, this state of affairs is likely to continue.\textsuperscript{308}

In 1986, the situation shows little change, and there is still much room for expansion.

13.1 WHAT IS A SPECIAL LIBRARY?

Special libraries have been defined by Blagden as special because: "they serve a restricted clientele who work in an organisation with comparatively specific goals."\textsuperscript{309} Blagden also says that "Special libraries exist to provide information which can be used to take a decision."\textsuperscript{310}

What then is the role of the special librarian? Anthony defines it this way:

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310 Ibid., p. 86.
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to select, organize, control, analyse, evaluate and disseminate and thus, for each individual user, to provide only what can be usefully absorbed and is relevant to a particular situation.  

Librarians are, of course, familiar with the concept of special libraries and the role of the special librarian. They would like to believe that anyone in need of information would immediately think to ask a librarian, knowing that the librarian's training has given him or her specialised awareness of the vast resources of information available. They are also trained to decide on economical ways of obtaining the specific information required. However, the majority of people do not ask a librarian when they want information. They prefer to ask someone they think might know the answer, and provided the information seems reliable, the source is of little concern to them. It is more important to get the information as quickly as possible. The first survey of this thesis details research results showing that engineers tend to employ the law of least effort in their information searches (see section 5.3 of Chapter 5). In addition, Grogan confirms that even scientists and technologists, trained in research methods, have this approach.

Probably because it is the easiest, consulting other people is the most common method: it is probably more important here than all the printed sources put together, though it should be pointed out again that such consultation often leads to the literature, particularly in those cases where numerical data is required.

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If this attitude is prevalent, why does a firm decide to appoint a professional librarian? Given that most firms have a collection of publications of some sort, is there a particular event, or series of events, that encourages the process that leads to the appointment of a professional librarian?

What does the firm expect? What does the newly appointed librarian find? Is there a recipe for success that can be prescribed for other librarians about to embark on the establishment of yet another small special library?

These were the questions that seemed to suggest that research should be undertaken into new special libraries in New Zealand. The purpose was simply to assess the effects within several New Zealand firms, where a professionally qualified librarian had been appointed for the first time within the last five years. By asking both the librarian and selected users, it was hoped to establish some of the answers to the above questions. In addition, it was hoped that the questionnaire, or an adaptation of it, could be used subsequently by librarians of other newly established small special libraries to assist them in assessment of their users' needs.

13.2 THE NEED FOR USER STUDIES

When a firm has made an investment in a library, it expects a return. Blagden describes it thus:

The initial decision to invest in a library is obviously based on the premise that some benefits will result and that therefore to monitor the performance of a library, some attempt should be made to discover how beneficial the library actually is. Certainly, in the special library environment, the whole point of the library is to ensure some favourable outcome. 313

313 Blagden, p. 18.
A user study is therefore indicated within the first few years of a library's life to ensure that establishment of the library has resulted in tangible benefits for its users. The definition of a user study given by the Centre for Research on User Studies, is:

to further understanding of the processes of information transfer. The research may be expected to lead to the improvement of information transfer systems of all types and to have implications for the organization of communication, the distribution of resources and the relationships between systems.314

Butler and Gratch express the same principles in a different way. They say:

Why do a user study? The answer to that question is critical and provides the raison d'etre for all subsequent planning activity. In general terms, the purpose of a user study is similar to market research in business. It is an attempt to discover patterns of use and levels of awareness of users toward library services, to determine success or non-success of services, and to identify what adjustments are needed in service strategy.315

Chen points out another advantage of such research. She says:

Without a more complete understanding of the patterns of information need and fulfillment, libraries cannot compete with other information providers in the struggle for survival.316

There is more than a suggestion here that librarians need to demonstrate to their clients that they have skills that are valuable, and that will assist their users to be more informed in decision-making. Chen believes too, that librarians must develop a sensitivity of and responsiveness to the information needs of their clients so that they:

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envision and execute programs and services to meet these needs and establish themselves and their libraries as vital and invaluable community resources.317

Agreement to undertake or participate in a user study should therefore pose no threat for a librarian. Cronin suggests that:

user studies imply a willingness to relate product or system design to the perceived needs of those for whom the product or system is intended.318

In other words, user studies should help us to improve our services.

13.3 NEW ZEALAND USER SURVEYS

In New Zealand, a search of the literature from 1970 onwards reveals very few specific user surveys. Two are of interest to the special librarian, and both emanated from DSIR personnel. In 1975 Szentirmay undertook a survey to find out which computer-based Selective Dissemination of Information services were being used and by whom.319 Keir attempted in late 1978, to "establish areas where technical information could best be of assistance to manufacturers."320 In addition, Wooliscroft's 1968 survey of the library resources of industry in the Wellington and Hutt Valley areas also tried to make manufacturing firms "aware of the ways in which the various libraries around Wellington could assist them."321 It is probable that many librarians do undertake user surveys of their clientele from time to time in an effort to evaluate the services offered by their libraries. Two of the firms

317 Ibid., pp. 7-8.
that were asked to participate in this survey of new special libraries had undertaken such surveys within the previous year. Both were law firms. In each case publication of the results had not been considered, as the survey was seen as a document for in-house use only. This may indicate a need for librarians to learn to share their expertise in particular skills, but it also seems that librarians need more encouragement to publish their findings.

The paucity of user surveys in New Zealand corresponds to Ford's findings in British and American literature. Ford suggests that librarians and information scientists may not be undertaking this work because the methodology used has been adapted from other disciplines, and is not entirely suitable. He comments also on the "lack of a common corpus of research experience and training in this field" resulting in a general ignorance of all the necessary steps in the research process. It follows that it could then indeed be true that given a good clear example of a user survey with specific designs, implementation and dissemination parameters, New Zealand librarians might be encouraged to undertake and publish the results of user studies in the future.

Yet another reason for undertaking this survey was to provide some evidence to the New Zealand business community that there are tangible results if a firm employs a librarian. These results needed to be assessments provided, not by a librarian, but by business men and women themselves. Moore points out that in attempting to evaluate newly introduced services:

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322 Ford, p. 56.
323 Ford, p. 57.
A variety of research methods have been used, and a number of lessons have been learned. It is still, however, an area where there is a degree of confusion and uncertainty, and one in which much basic developmental work remains to be done. 324

For such a study the measurement of effectiveness must be an important concern.

The measurement of effectiveness attempts to assess the impact which a service has on its users, to look at the way it has fulfilled their expectations and satisfied their needs. 325

Moore reports that cost-effective techniques for the measurement of effectiveness are still in the developmental stage and that:

the output, or product of libraries and information services is intangible and therefore difficult to measure at the best of times. 326

Moore believes that:

Of more practical relevance is the evaluation of services which have been newly introduced, the comparative evaluation of different forms of service or operation and the measurement of performance or the success in achieving an objective. 327

Blagden points out that there are two basic approaches when the overall performance of a library is being assessed. They are:

(a) from the viewpoint of the user, ie, how effective is he, how he spends his time, what is the relationship between information inputs and effective performance ... and
(b) from the viewpoint of the library manager, ie, what proportion of users were reached, what proportion of documentation borrowed was read, what proportion enriched the thinking of that individual, and did this enrichment lead to any contribution to organisational effectiveness. 328

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325 Ibid., p. 49.
326 Ibid., pp. 49-50.
327 Ibid., p. 50.
328 Blagden, p. 24.
13.4 THE CHALLENGE FOR LIBRARIANS

Librarians of all libraries usually aspire to make their libraries reach more people more effectively. They need to be guided by knowledge of the public they serve rather than by opinion or spasmodic observation, in their attempts to fulfil this ambition.

Today, the rapid advance of technology has given many people, other than librarians, the means to provide information both to organisations and individuals. All librarians must adapt and use this technology to their advantage.

It is however, difficult to adapt. Chen and Hernon believe that:

> Without a more complete understanding of the patterns of information need and fulfillment, libraries cannot compete with other information providers in the struggle for survival. The alternative to competition and adaptation is irrelevance, disuse, and organisational decay... 329

This survey then, is an attempt to assist librarians, particularly those in charge of small special libraries, to provide relevant services to their clients in the organisations in which they work. In this way, both librarian and library will adapt and change to meet the needs of the clients they serve, and will not become irrelevant or defunct.

329 Chen and Hernon, p. 7.
Chapter 14

LITERATURE REVIEW

As stated earlier, the number of special libraries in New Zealand is increasing. In 1976, writing in the Encyclopaedia of Library and Information Science, MacLean said that:

the libraries of commercial and industrial concerns ... are growing in number and importance, particularly in the Auckland region where there is the greatest concentration of secondary industries.330

While that may have been true when MacLean was writing, an analysis of the 1984 DISLIC 331 shows that Wellington is now the stronghold of special libraries, and has 161 collections listed, while Auckland has 80. Other centres where the numbers of special libraries are significant include Christchurch with 25, Dunedin with 21, Lower Hutt with 15, Palmerston North with 11, and Hamilton with 10. Collectively, the various directories of special libraries are the only on-going publications which illustrate the growth of special libraries in New Zealand. However, one cannot rely totally on one source. Firstly, special collections which form part of larger public, university and the National Library collections are included. Secondly, many special libraries are not included either because their staff members do not attend New Zealand Library Association meetings, so that they and their collections are not well known, or because the editors of DISLIC have not been informed of their existence.


Similar findings are reported by Christianson, in a survey of new special libraries in the Illinois area of the United States. She found reliable statistics to illustrate the growth of special libraries were "difficult to find", as most that were available had been "reconstructed indirectly" using various directories. She also said:

many special libraries are 'invisible' because they are small in size, their staff members do not participate in the library community, or some other parameter places them outside the criteria of the directory.\footnote{332}

Given the obvious growth of special libraries, is there any evidence available to establish if there is a pattern in the growth or management of a firm which leads to the establishment of a special library, and the appointment of a professional librarian? Kruzas\footnote{333} studied the origins of some special libraries between 1820 and 1940. He identified two basic types of collections from which professional library services grew.

1. Professional and technical collections - The older special libraries had been formed from professional and technical collections maintained by business firms. These included collections in law firms, engineering companies, actuarial firms and scientific establishments. Other types of firms mentioned whose collections had developed in the same way were insurance companies, chemical firms, pharmaceutical companies, manufacturers, consultants and engineering firms.

2. Business records and data files - Many other special libraries were formed from collections of data essential to the operations of financial firms. These collections consisted of working records, company annual reports, newspaper clippings, statistics, government documents and


various non-book materials. Included in the types of libraries that began in this way were firms of investment bankers, commercial banks, and firms offering business services.

Kruzas identified several basic patterns common to the development of these special libraries. Two of them accounted for some two-thirds of the libraries he studied. The first was that libraries evolved gradually because of the needs of a group of professionals within the firm. The second was that a library was organised when a decision was made to consolidate resources and put them together in a central location. Other patterns which resulted in professional library organisation occurred when a library developed from the personal collection of a staff member, when management directed that a library should be created, and when technical or business libraries were added to previously established recreational or educational collections of publications for employees.

In her paper, Dermyer listed 11 situations. She reported that according to the Special Libraries Association (SLA) the existence of one or more of these situations gives a "strong indication that a library is needed." These situations are:

a) Duplicate copies of books and magazines are bought, often inadvertently.

b) Publications are scattered throughout offices, and specific titles cannot be located.

c) Poor quality publications are bought and reliable ones are missed.

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d) Free and inexpensive information is wasted through lack of organisation.

e) Valuable employees leave for companies with established library services.

f) Much money is spent on toll calls trying to locate statistics and other data.

g) Decisions are delayed because of a lack of information, or information of value arrives too late.

h) Visits to the public library bring few results.

i) Research is incomplete, or may duplicate work already done.

j) Attempts to borrow material on inter-library loan are unsuccessful.

k) Competitors have in-house library services.

Dermyer reported that companies differ in their reasons for actually starting a library. She said that "often it's simply the mass of information piling up day by day and defying all attempts at organization" that acts as the trigger which results in the appointment of a librarian.

Christianson and Ahrensfeld335 in their summary of the Committee on New Special Libraries (CONSL) study of new special libraries in the Illinois area336 reported that in 80 percent of the organisations under study, management was aware that they needed better information, and that their information resources were poor in the pre-establishment period of their library. In two thirds of the organisations, the librarians started the library, "either from unorganised materials or a collection in some


336 Christianson, New Special Libraries: A Summary of Research.
stage of development, or from 'scratch'."

The primary reasons for establishing a special library "were equally divided between a desire for organization of materials and a desire for information service."

Christianson and Ahrensfeld\textsuperscript{337} also identified specific trigger events and/or people who took an active interest in the promotion of the idea of a library. Often an event such as a physical move or the consolidation of several departments, coming on top of other influences, was sufficient to tip the balance towards the establishment of a library.

Levin\textsuperscript{338} reported that the idea for establishment of the Aluminium Association's library began with a committee suggestion that there should be better access to information. A consultant from the SLA contracted to develop a proposal for an Information Centre for the first 18 months of operation.

However, Christianson and Ahrensfeld\textsuperscript{339} reported that only 17.3 percent of the libraries in their survey "were familiar with or had used SLA publications or consultation." Most firms simply employed a librarian.

Nevertheless, Christianson\textsuperscript{340} believes that the Special Libraries Association was another important influence in the formation of special libraries. She mentioned in particular the influence of two special librarians who were both charter members of the SLA. Guy Marion and

\textsuperscript{337} Christianson and Ahrensfeld, p. 148.
\textsuperscript{339} Christianson and Ahrensfeld, p. 149.
\textsuperscript{340} Christianson, New Special Libraries: A Summary of Research, p. 12.
George W. Lee "actively promoted the special library concept of service," and created model libraries.

Christianson also reports that:

- the SLA itself published many articles and pamphlets promoting special library service to business and industry and provided a focal point for the newly emerging special libraries and special librarians. 

This suggests that the work of individual librarians who are actively involved in the promotion of librarianship in business and industry, is encouraged and enhanced when their professional association actively attempts to further the establishment of new special libraries.

In New Zealand, the Special Libraries and Information Services Section of the New Zealand Library Association has promoted the interests of special librarians within the library community, but there is no indication in the published literature that it has as yet, promoted the formation of new special libraries, or attempted to develop the professional standing of librarians in the wider community. Such goals would not only be worthwhile in themselves but also would result in a stronger professional association through increased membership. The development of these objectives could provide a vital impetus over the next decade for the Special Libraries and Information Services Section of the New Zealand Library Association.

341 Ibid.
14.1 ACCEPTANCE OF THE PROFESSIONAL LIBRARIAN

Because a professional librarian has been appointed to a firm, all information problems within the organisation are not automatically solved. Thompson\(^342\) has identified three barriers to information transfer and to technological change, that exist within management. They are "lack of knowledge, lack of understanding, and lack of desire to change." He believes that a lack of knowledge results from the education available, while a lack of understanding is also related to the educational process. Lack of desire to change can arise from a variety of causes, including tradition, fear, and more importantly for librarians perhaps, from an inability to appreciate the benefits.

Thompson\(^343\) believes that there are several ways to overcome these barriers, including education and use of the media—word of mouth, the written word, and television, radio and films. He also sees the need to convince the manager that the change is in his own interests, and he suggests that this may be accomplished by demonstrating the material and other rewards which it will bring. Other writers also see the need for the librarian to demonstrate that correct, current and comprehensive information is of value to the firm. Kok\(^344\) points out that "it is not enough for special library managers to develop superior, user-oriented information services." He says that these services must be promoted and the library's function sold throughout the organisation.


\(^343\) Ibid.

Rippon believes that in order to provide an effective service the librarian must serve:

not only as a link between the users and his own information system, but also act as a bridge between his users and outside information sources and services. 345

Anthony sees a need for librarians to "play a greater part in assessing the value of the information provided and to take responsibility for guiding management in the use of this information."346 Easterfield supports this view by saying that "the information which is coming in to a person ... has to be adequate but must also be manageable."347 He suggests that the librarian should make a summary of the most interesting points in a research project, perhaps with an index or summary as a guide to extra detail which may be needed. He believes that a large number of decisions could be made on the basis of limited but well-chosen information. Information then, has to be presented in acceptable packages. Kok also agrees that the librarian should "make every effort" to supply all the people in the organisation "with processed information and not just collections of raw data."348

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348 Kok, p. 526.
14.2 THE VALUE OF LIBRARY SERVICE

At least five studies have been completed that produce evidence justifying the existence of an in-house library on the basis of either cost or time savings. Mason\textsuperscript{349} suggested that the amount of user time saved by library staff equated to about one pound per quick reference question through to twenty pounds for a literature search. Magson,\textsuperscript{350} using management by objectives exercises, prepared cost-activity and cost-function analyses and obtained cost-related benefits for specific activities and functions. Blagden\textsuperscript{351} attempted a similar study which demonstrated that the in-house library staff located information much more quickly than the user working in an organisation without a library. In addition, the quality of answers obtained by the professional librarian was generally far superior to those obtained by the person without a library. Kramer\textsuperscript{352} and Rosenberg\textsuperscript{353} both asked their survey respondents to indicate how much time they thought that library use had saved them. The answers did not relate to specific use of the library, and are therefore less reliable, but they did point to time savings.

The five studies mentioned above suggest that many of the benefits from library service are not easily discerned. A more recent study by Keeler outlines strategies in "marketing, production and advertising" to help a


\textsuperscript{351} J. Blagden, "Special Libraries," \textit{Library Association Record} 77 (June 1975): 129-133.


librarian in a new special library to prove its worth. She believes that if a librarian is operating effectively:

managerial manhours are saved, ... dollars are saved ... the reputation of the company is enhanced by the librarian ... and the professional reputation of the librarian is strengthened. 354

Nevertheless, librarians should not forget that business, industrial and commercial organisations see an increase in net income to be an important goal, with the special library as part of the overhead. Special librarians need to record time and money savings made. The potential savings to be made are enormous if the time of management staff is reduced because the librarian has introduced efficient and effective services.

14.3 EVALUATION OF SERVICES

Reference has been made already to the need for the new special librarian to communicate with all prospective library clients, and management in particular. St. Clair underlines the importance of this communication by saying:

Just as no one is going to use a library he never hears about, so no one is going to value the librarian if no one knows what he is doing. 355

Nowhere is this made more clear than in Matarazzo's study of the decision-making process which led to the closing of several corporate libraries. Matarazzo concluded that the management decisions which closed the libraries "were based on the perceived value of the library against a background of financial difficulty." He said that:

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Management did not appear concerned with the quality of service, collections or levels of service to the extent that these were factors in the decision to terminate library services.\footnote{356}

He points out that none of the librarians concerned evaluated the services of their library in any meaningful way, or altered their services as the needs of their company changed. Instead:

user comments (usually praise) and salary increases were substituted by the librarians for the formal evaluation of services.\footnote{357}

In times when many libraries are being asked to justify their existence, Ladendorf suggests that the level and quality of evaluative efforts should be improved. She believes that:

the development of good evaluative measures depends on clear definition of organizational goals. ... Efficiency can be promoted by the applications of systems analysis. ... Effectiveness in library terms is to provide the highest possible level of service within the limits of the available resources.\footnote{358}

In short, we must maximise services while minimising costs.

Kok suggests that librarians should survey their users "to find out what they most want from their library," and that information services should be adjusted to meet the identified needs. Such market research should be done continuously so that librarians do not find themselves "turning out a product few people want and even fewer people are willing to pay for."\footnote{359}


\footnotetext[357]{Ibid., p. 130.}


\footnotetext[359]{Kok, pp. 525-526.}
Robertson also supports the view that the goals of the librarian must coincide with the needs of the clientele. He surveyed the research staff of three organisations to compare their perception of library priorities with those of the library managers. From the survey results, a user-oriented model was developed which can be used for planning and evaluating special libraries. The model groups 11 aspects of library services into three clusters of importance with journal purchases and computerised literature searching given the highest priority.

Another method of evaluation of library and information services is described by McElroy. The project was carried out over 19 weeks, and tried to evaluate the library's stock, activities and services. The library of the pharmaceutical research and development company concerned now has an evaluation package which can be implemented again with a minimum of preparation.

14.4 SECURITY FOR THE NEW SPECIAL LIBRARY

In recent years, libraries have been operating in times of economic depression. Jones warns that even that venerated institution, the local public library, has "been forced to come to grips with the reality that the traditional security of public libraries can no longer be taken for granted." The librarians of organisations where new special libraries have been created must learn from the experiences of all librarians, and


adopt strategies which will assist their survival.

Christianson and Ahrensfeld suggest that a librarian who is "assertive and can promote the library effectively is an important factor." S/he must also have "a definite commitment to the success of their special library." 363 The writers also warn that while "hiring of the librarian may make the new special library visible, ... it does not necessarily make it viable." 364 Goal-setting, and continuing communication between management and the librarian are important, and the economic climate within which the organisation operates must be understood.

St. Clair recommends that "a pleasant attitude is essential" for the librarian, 365 while Keeler suggests that an appointee to a new special library should do almost anything "to get away from the negative connotations inherent in the word 'librarian'." 366

Ljungberg suggests that the status of the librarian/information manager in the organisation is important. His research has shown that the top executives who make the decisions on the place and status of the library will often be unaware of how much use is being made of the information service. While they may not actually use the library themselves, many people use it on their behalf. Ljungberg says:

363 Christianson and Ahrensfeld, p. 151.
364 Ibid., p. 149.
365 St. Clair, p. 176.
366 Keeler, p. 263.
This state of affairs, which is not uncommon, underlines the importance of the information manager making sure that top management is kept aware of the information services and of the information supplied to them by the information unit.\textsuperscript{367}

Holmes suggests that the "provider of information" must be able to supply not only "internal subset[s] of data" but "external data" from the library world. Librarians must also be able to provide that information selectively, thereby turning "data" into "information". This combination should assist librarians to establish themselves "as a needed part of the decision-making team."\textsuperscript{368}

It may help the librarian who is promoting services to know that O'Reilly reports that "the direct relationship between the quality of information used by a decision maker and decision making performance has been well established." He points to a number of laboratory studies which have shown that "the availability of relevant information typically improves the accuracy of decisions."\textsuperscript{369} One such study was conducted by Porat and Haas who tested a hypothesis that "the more specific information a decision-maker has, the more accurate will be his levels of aspiration and decision."\textsuperscript{370} The results of their experiment tended to support this hypothesis in part.


\textsuperscript{369} Charles A. O'Reilly, "Variations in Decision Makers' Use of Information Sources: The Impact of Quality and Accessibility of Information," \textit{Academy of Management Journal} 25 (December 1982): 756-771.

At much the same time Streufert examined a complexity theory which varied information load and measured characteristics of group decision making. Information load and information relevance were seen to be two variables, and in one experiment, their separate effects were studied.

The results were tentatively interpreted to suggest that complex decision making varies with relevance, while simple decision making varies with information load. There is thus some support for the belief that 'good' information leads to 'good' decision making.

Similarly, an article by Jackson and Jackson indicates "the superiority of corporations with libraries." This study used Fortune's list of the 500 largest American industrial corporations in the United States, where 311 of the 500 organisations reported having a professionally staffed library.

The study gathered information on the number of libraries within each firm, the numbers of professional librarians, and data on the holdings (including volumes and subscriptions) of their libraries. These library-related measurements were compared with the commercial measurements (number of employees, and company sales and assets) of companies from the 500 within the same industrial classification (e.g. Chemicals, Pharmaceuticals, Food, etc.). A mean ranking was established, and the results indicated that those corporations with libraries had higher reported statistical values than those without them. The "major unresolved question" to come out of the study was "how some firms can be

in as distinguished a list as FORTUNE 500 and not have formal special libraries/information centres."\textsuperscript{372}

Librarians then, should be confident disseminators of information. Yates suggests that if they are also "activators, evaluators and decision prompters" then they will have and deserve a "leading place in the organisation." He illustrates this by saying:

> An information unit is like a supply line, feeding ammunition to the troops at the front. In total it has more ammunition than each individual, and it must see that each individual gets what he needs. But do not forget that ammunition only realizes its maximum potential when it is fired.\textsuperscript{373}


Chapter 15

OBJECTIVES AND METHODOLOGY

15.1 OBJECTIVES

Although the objectives of this survey were formulated with the Wellington area in mind, the results may be valid throughout all areas of New Zealand. The survey objectives were:

a) To support librarians in newly established special libraries by providing them with unbiased evidence of the effect of their library services, to aid them to make any necessary changes to serve staff more effectively.

b) To support librarians in newly established special libraries by providing a comparative evaluation of their services with those offered by other librarians in similar situations.

c) To aid the proliferation of special libraries by demonstrating the benefits found by staff in firms where special librarians had been appointed within the last five years.

d) To establish whether there is a discernible pattern leading to the appointment of a professional librarian in a commercial firm.

e) To encourage librarians to conduct and publish user studies of special libraries by establishing a suitable methodology.
15.2 THE SURVEY SAMPLE

As stated earlier, one of the main reasons for this research was to try and assess the effects within a firm when a professional librarian had taken post less than five years previously. It was therefore necessary to survey those people in the firm who had been there before that appointment, and who were still employed there. This was the only way to get a 'before and after' scenario that was objective, and would as well, provide the librarian concerned with feedback on the current services provided.

It was also necessary to conduct a survey of the librarians who could provide background information about these firms, report on the services provided, and indicate if there were any problems in running their libraries.

For the purpose of this research a new special library was defined as a special library established by the appointment of a professional librarian for the first time in 1981 or later, and which, at the time of the survey in June and July 1985, was still operational. This definition was adapted from that used by Christianson. In addition, Christianson's definition of a special library was used.

A special library was defined as a library within a company or other organization whose organizational goal was other than library service. Special libraries in public or academic libraries were excluded.

The survey was restricted to the same geographical area as the first survey of this thesis - that is, to new special libraries located within one hour's driving time of Wellington. Eleven new special libraries were identified.

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374 Christianson, p. 27.
15.3 METHODOLOGY

Various methods for the collection of information were considered, including personal interviews, telephone interviews and self-completed questionnaires. Initially personal interviews were the preferred method but discussion with three of the librarians from the firms to be included indicated that the response rate would be poor to such a survey, as many of the firm's senior staff were included and had indicated that they were not prepared to spare the time.

A self-completed questionnaire was then decided on to collect the information required. The advantages and disadvantages of such a questionnaire are listed in Unesco's Guidelines on Studies of Information Users. The advantages are:

- cheapness;
- avoidance of bias introduced by interviewers;
- questions requiring considerable reflection by the respondents can be used; and
- scattered populations can be easily contacted.

The disadvantages are:

- questions must be simple and easy to understand;
- replies to questions cannot usually be checked with the respondent;
- there is no evidence of the state of mind of the respondent;
- the questionnaire can only be sent to people of a reasonable standard of literacy; and
- the response rate tends to be low compared with the interview method.

It was felt that some of the disadvantages could be overcome. In particular, it was known that all respondents would have a high literacy standard. As well, it was decided to ask the librarians of the firms concerned to distribute the questionnaire and in so doing, to enlist the

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co-operation of the respondents. This did result in an increased response rate, although it involved some of the librarians concerned in considerable follow-up.

15.4 THE FIRMS IN THE SURVEY

Eleven firms in the Wellington area met the criteria for this research. They had established libraries and appointed professional librarians to their staff in 1981 or later. The main goal of each organisation was something other than library service.

The librarians of the eleven firms were contacted by telephone, to acquaint them with the research and seek their co-operation. During this preliminary telephone contact, it was established that two of the librarians of the new special libraries concerned did not wish to participate in the research. One librarian had been in her post in a merchant bank for just two months and felt it was too soon for any worthwhile results to be available. The other librarian from a government department, was "too busy" and as her organisation was short of staff, she believed that those people that came within the survey criteria would likewise be too busy to answer the questionnaire.

A third librarian contacted was happy to participate in the study, but her quasi-government organisation employed less than 15 people, and of them, only one person who was employed before the appointment of the librarian was still on the staff. As the report of only one person could introduce a bias, it was decided not to include this organisation in the study.

Thus, the controlling officers of the librarians of eight organisations were sent a letter which explained the reasons for the research, and asked for permission to conduct a survey in the firm (See Appendix F).
Of the eight organisations contacted, six gave permission for the survey to be conducted in their firms. One librarian from a producer board refused to participate because she was about to resign her position, and believed she should not commit her successor to anything that might result from the survey. The second librarian preferred not to participate because her law firm had recently been involved in a merger. As a result of that, she stated that many people in the firm felt overloaded with administrative work. The librarian believed that she was achieving a high profile, and that if she asked already busy people to complete a questionnaire, she was putting her image at risk.

Of the six firms who agreed to the survey, four were legal firms, one a merchant bank, and one a firm of consulting engineers.

15.5 THE RESPONDENTS
Initially, it was intended to distribute the questionnaire to all members of the firm's staff who met the criteria - that is, those who were working for the firm before the appointment of the first professional librarian, and who were still employed there. In five of the firms to be surveyed, it was found that these people were the fee-earning partners and other professional staff such as engineers, draughtsmen and women, accountants and office managers. However, in the sixth firm, where the librarian had been employed for only five months at the time of the survey, almost all staff members had been employed for longer than the librarian. They included secretaries, accounts clerks and records staff, as well as partners and other professional staff. As only professional staff were being surveyed in the other five firms it was decided that bias in the results should be avoided by restricting circulation of the questionnaire in this sixth firm to professional staff only.
15.6 SURVEY DISTRIBUTION

The questionnaires for the main survey were distributed in mid July 1985 to the librarians. An explanatory letter accompanied each questionnaire (See Appendix G for the explanatory letter and Appendix H for the Questions for Professional Staff; see Appendix I for the explanatory letter and Appendix J for the Questions for the Librarian).

The librarians were asked to use their discretion and distribute the questionnaires at a time when it was convenient to add to the work load of those concerned. Then after distribution, the librarians tried to get the questionnaires returned within one week. Only one firm achieved this, and the last firm had its replies ready for collection by the end of August. Although replies were therefore collected over a six-week period, this was of little significance to the survey itself.

15.7 THE QUESTIONNAIRES: QUESTIONS FOR PROFESSIONAL STAFF

A seven-page questionnaire with 21 questions was designed as the survey instrument to question professional staff. Because it was in effect a mail questionnaire, Line's advice was followed so that there was "a preponderance of precoded questions." Not only does this save time in analysis, but:

with precoded questions the respondent has only to interpret what you mean by the questions. With open questions you have to interpret the respondent's answer to what he interprets your questions as asking, so that the dangers of misunderstanding are multiplied. Thirdly, precoded questions are quicker and easier to answer.376

Three open-ended questions were included to ensure that respondents had an opportunity to express their opinions in their own words, and so add to the value of the survey.

Line supports the view that a few open-ended questions should be included. He points out that:

> Recipients of forms sometimes have hobby horses they wish to ride, or bees in their bonnets waiting for an opportunity to swarm. If provision is not made for this, it may make its presence felt in the rest of the questionnaire: the indignant respondent may ignore all your careful precodings and write an essay of his own, of marginal relevance to your question. In any case, many comments, solicited or unsolicited, are quite reasonable and ... can make the report of the survey very much more readable.377

In addition to the open-ended questions, the 'Other, please specify' option at the end of multiple-choice questions, gave respondents an opportunity to give a different viewpoint, and many did so.

**Pilot Study**

A finance company was chosen for the pilot study. The questionnaires were distributed by the librarian in the last week of June 1985, and returned two weeks later. As no problems with the questionnaires were evident from the pilot study, no alterations were made to it. However, in analysis of the full questionnaire results, it became obvious that three questions, Questions 2, 3 and 11, were not as precise as they could have been. To aid clarity, they should have been re-worded or altered slightly. These results are discussed in more detail below. It was however, surprising to find that the respondents from the law firms (and one firm in particular) had more difficulty in answering these questions than the respondents from the two non-legal firms. A few respondents from the law firms queried the intent of questions which respondents to the pilot study answered without any such apparent

377 Ibid.
problems.

It was of interest too, that all respondents to the pilot survey used the ranking system of Question 11 which attempted to find out how useful staff found the various library services. In the main survey, many respondents ignored the ranking system, and simply used ticks and crosses to indicate the services they found useful.

Distribution

The questionnaire used for this study is included as Appendix H. The accompanying letter sent to each respondent to explain the purpose of the questionnaire is included as Appendix G.

The letters and questionnaires were distributed in person by the librarian of the firm, and returned to her in the sealed envelopes provided. The librarians were instructed not to open the envelopes, and all complied with this request.

Question 1

1. In the pre-establishment period of the library, was there:
   (Tick one)
   ____ a library, unstaffed
   ____ masses of material scattered throughout the office
   ____ the library truly started from "scratch"
   ____ other, please specify

This question was adapted from Christianson's study on new special libraries in Illinois. It attempted to find out whether publications were available for the use of staff before the appointment of a professional librarian, and whether any attempt had been made to organise them. This first question was also included in the

378 Christianson, p. 60.
questionnaire for the librarian, to check the validity of the answers.

One of the options given in the Illinois survey was "a library staffed by nonprofessionals." A decision was made to leave out this option, firstly because it was established in discussion with the librarians of the firms to be surveyed that none of the libraries had been staffed in this way. Secondly, librarians who commented on the survey at an early stage felt that the respondent lawyers, engineers and financiers who had contributed to the maintenance of existing collections, could be offended by the term "nonprofessional."

Questions 2 and 3

2. What, in your opinion, was the organisation's primary expressed reason for starting a library?

(Tick one)

___ Recognition of the need to organise information resources
___ Need for an information service
___ Other, please specify

3. Were any of the reasons given below influential in the firm's decision to start a library? (You may need to tick more than one reason)

___ Because funds were available
___ Because access to the inter-library loan service was needed
___ Because technological innovations in the information field called for in-house expertise
___ Because of a need for more comprehensive information to assist decision-making
___ Because the amount of information held had expanded rapidly
___ Other, please specify

379 Ibid.
Questions 2 and 3 were designed to find out how and why each firm appointed a professional librarian. They were adapted from the CONSL survey of new special libraries. In question 2, the option "Desire for organization of materials" was changed to "Recognition of the need to organise information resources." It was believed that the business people being surveyed would respond in a more positive way to this pragmatic wording.

Question 3, which tried to elicit those reasons which were influential in the firm's decision to start a library, used two of the CONSL study's optional answers - those concerned with funds and technological innovations. The other options were developed from personal knowledge of the New Zealand situation. No firm, for example, may participate in the inter-library loan scheme unless it employs a professionally qualified librarian for a minimum of 20 hours per week. It was thought that this could be an influential factor in the employment of a professional librarian. Similarly, with increasing competition evident in New Zealand through the implementation of the "think-big" energy projects, it was known that some firms had not been awarded contracts because of the lack of detailed documentation in their contract tenders. The employment of a librarian could therefore be an attempt to gain access to more comprehensive information.

Although no problems with these questions were evident with the pilot survey, several answers to the final questionnaire showed that the main question of both questions 2 and 3 could have been more precise. The four law firms all had a room called a library, and a few respondents were unhappy with the implied suggestion in the question that the library had only started with the employment of a professional librarian.

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380 Ibid.
librarian.

It follows that the main questions should perhaps, have been reworded as follows:

2. What, in your opinion, was the organisation's primary expressed reason for employing a professional librarian?

3. Were any of the reasons given below influential in the firm's decision to employ a professional librarian?

Nevertheless, most respondents accepted that library service began with the professional librarian's appointment, indicating that the intent of the questions was clear to the majority.

Question 4

4. Do you think the library/information collection is:

(Tick one)

___ essential
___ very useful
___ useful
___ not very useful
___ not at all useful
___ other, please specify

Question 4 attempted to start respondents thinking about the value of library services, by asking them to place a value on the library/information collection. The question was adapted from Kapadia and Rettino's questionnaire on Selective Dissemination of Information Services,381 which, like this survey, attempted to evaluate the quality of the particular services provided.

Questions 5, 6 and 7

5. How often in your everyday business activities do you need ready access to information? (e.g. from files, statutes, books, journals, or by telephone etc.)

(Tick one)

____ several times a day
____ once a day
____ twice a week
____ once a fortnight
____ other, please specify

6. Do you do your own research to find information, or does someone else in the firm do it for you? (You may need to tick more than one answer)

____ Do it yourself
____ Always get the Librarian to do it
____ Sometimes get the Librarian to do it
____ Always get someone else (other than the Librarian) to do it
____ Sometimes get someone else (other than the Librarian) to do it
____ Other, please specify

7. How often do you personally make use of the library? (Tick one)

____ Several times a day
____ Once a day
____ Once a week
____ Once a fortnight
____ Other, please specify

The first two questions were used in the first survey of this thesis for the same reason as they were used here - to get respondents to think about their need for, and dependence on information.
Question 7 advanced this point and attempted to get respondents to think about the number of times they made use of publications held in the library, and their dependence on information as a source of help in their daily work and decision making.

Questions 8 and 8a

8. Where do you go first when seeking information? (Tick one)

____ the firm's librarian
____ the library of your business or professional organisation (e.g. the Wellington District Law Society library, Accountants' Society library, etc.)
____ a government department (e.g. Trade & Industry, DSIR, Justice, Ministry of Works, etc.)
____ the local City Council
____ the Standards Association
____ the National Library
____ the Scientific and Technical Information Service (SATIS)
____ your local public library
____ someone in a profession similar to your own
____ a supplier (e.g. bookseller, manufacturer, product distributor, etc.)
____ someone in a university
____ someone in a technical institute
____ a consultant in private practice
____ other, please specify
8a. Where else do you go when seeking information? (You may need to tick more than one answer)

___ the firm's librarian
___ the library of your business or professional organisation (e.g. Wellington District Law Society library, Accountants' Society library, etc.)
___ a government department (e.g. Trade & Industry, DSIR, Justice, Ministry of Works, etc.)
___ the local City Council
___ the Standards Association
___ the National Library
___ the Scientific and Technical Information Service (SATIS)
___ your local public library
___ someone in a profession similar to your own
___ a supplier (e.g. bookseller, manufacturer, product distributor, etc)
___ someone in a university
___ someone in a technical institute
___ a consultant in private practice
___ other, please specify

Questions 8 and 8a were designed to check on the information sources used by the respondent. Was the librarian accepted as the information expert in the firm, or did staff still use their own information network and/or contacts which they had used before her appointment? If they did not use the services of the librarian, where did they try to find the answers to their problems? It was further hoped that the answers to Question 8a might assist the librarians of the surveyed firms to be aware of the perceived weaknesses in their collections. Initially
Question 8a was included in the pilot study at the request of the librarian in that firm. The replies however, were of such value to that librarian, that the question was included in the main survey.

Question 9

9. Do you notice an improvement in any of the following areas since the firm employed a professional librarian? (You may need to tick more than one answer)

____ Elimination of duplication of research
____ Reduction of the time you spend searching for information
____ More confidence that the information being provided for you is correct, current and comprehensive
____ Access to information sources that were previously either not known or not accessible
____ Generally easier access to information wherever it is held
____ Other, please specify

At this point in the questionnaire, the respondent was asked to specify improvements that had been noticed since the employment of a librarian. Because it was felt that many of the respondents would not have thought about improvements in any depth, several questions were used to elucidate the full facts.

Question 10

10. Can you give me an example from your work of a time when you were able to use the Librarian's services to save you time and/or money?

As Section 14.4 of Chapter 14 shows, there are not many examples in the literature of savings made in time and money to show would-be employers
that employing a librarian will save a firm money, although it may also contribute to the overhead costs.

A common theme that emerged from many of the survey respondents was that time is money, and that therefore if the librarian saved time by providing information more efficiently than had previously been the case, she was in fact saving the firm money.

**Question 11**

11. Which of the services that the Library offers are useful to you? Please indicate your use of the services using the scale:

1 - very useful
2 - useful
3 - not very useful
4 - not at all useful

___ A quiet place to work
___ Physical control of the collection, so that any item held can be located
___ Provision of a catalogue/index to publications held
___ Preparation and distribution of lists of new books, journal articles, etc.
___ Suggestions for strengthening your book/journal collection
___ Control of publication ordering routines
___ Information and reference services
___ Computer database searching
___ Journal circulation
___ Indexing of journal articles
___ Preparation of subject bibliographies
Question 11 attempted to find out how useful respondents thought the various library services were. Robertson's article provided a checklist for the various services listed,382 and stated the rationale for this question - "for a specialized library to be successful, the goals of the librarian must coincide with the needs of the clientele."383

Respondents were asked to rank services, and while some clearly tried hard to answer this question and used the ranking system, other respondents ignored it and used ticks or crosses to give some indication of preference.

In an effort to co-ordinate the results without bias, the 'useful' and 'very useful' categories were combined, as were the 'not very useful' and 'not at all useful' categories. The percentage scores of the answers were then calculated and the rankings determined from them.

382 Robertson, p. 347.
383 Ibid., p. 345.
Question 12

Do you have any difficulty in getting information in any particular subject areas? If yes, which?

Question 12 was a slight adaptation of one asked by Collins in a survey designed to establish where users perceived difficulty when they were trying to find business information. Like Questions 8 and 8a, this question was included to help the librarians of the firms concerned to set priorities for building their collections, and also to check that staff were aware of all the strengths and weaknesses of the existing collection.

Question 13

13. Are you disappointed in any way with library and/or information services? If yes, please elaborate.

This open-ended question gave respondents an opportunity to express any reservations or disappointments they had with library services in their own way. Because the respondents were anonymous, and the librarians concerned did not see the completed questionnaire, it was hoped that any problems with library services would be honestly expressed. Similarly, the librarian, having been given the information in summary form, could take steps to remedy the situation without any confrontation having taken place.

Question 14

Do you feel that the library is "established" - that it is healthy and thriving, or do you feel its future is shaky?
In particular, if the librarian left the firm, would she be replaced by another professional librarian?

This question was adapted from Christianson's research on new special libraries. The librarians were also asked the same question, so that their answers could be compared with those from their firms. Basically however, the objective of the question was to determine whether there was widespread acceptance of the librarian as a professional within the firm.

Question 15

15. Do you consider that keeping staff informed about developments in your area should be: (Tick one)

____ the personal responsibility of managers/partners/proprietors
____ a general responsibility to be shared by all staff
____ the librarian's responsibility
____ other, please specify

Like the Portis survey question on the needs of managers in business, this question tested the attitude of respondents to their need for information. Was information essential to their satisfactory performance, and who should provide it?

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385 Christianson, p. 63.
Questions 16 - 21

BACKGROUND INFORMATION : PERSONAL

16. What trade or professional organisations do you belong to?

17. Could you please list your educational and professional qualifications?

18. Please indicate your age on the table below.

<table>
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<th>Age Range</th>
<th>Years</th>
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</tbody>
</table>

19. What position do you hold in the firm?

20. How long have you been employed in this firm?

__ Years

21. What is your total experience in years in your professional field?

__ Years

These questions asked the respondents for personal information. They were included so that if there were marked differences in attitude in the answers to some questions, a check could be made to see whether these attitudes differed according to age and/or the length of time spent in the profession. There were very few instances where such a check was made.
A four-page questionnaire of 17 questions (see Appendix J) was designed as the survey instrument for the librarians of the six firms in the survey. As in the survey for professional staff, many of the questions were precoded. In addition, two open-ended questions were included firstly inviting the librarian to comment on any problems she had in running the library, and secondly inviting any other comment on the library and its services. The explanatory letter given to each librarian is included as Appendix I.

Pilot Study

The librarian of the finance company chosen for the pilot study completed her questionnaire at the end of June 1985. She found no problems in answering the questionnaire, so no alterations were made to it. It should be noted that the position of Librarian in all firms was actually called Librarian, but it could equally have been called Information Officer, Information Manager, Information Analyst, etc. The librarians of all the firms are referred to in the feminine gender, because it so happened that all the librarians of the firms included in the survey were women.
Questions 1, 2 and 3

1. Is the business:
   - a sole proprietorship
   - a partnership
   - a limited liability company
   - a public company
   - a subsidiary of a large company
   - other, please specify

2. How many people working in the firm are partners or proprietors?
   ___ people

3. How many people are employed in this firm including yourself?
   ___ Full-time
   ___ Part-time

The first three questions of this study were designed to establish the main facts about the organisation - its control mechanism and the number of staff working in the firm. It seemed simpler and more efficient to ask the librarian for these facts, rather than ask each of the respondents within the firm the same question.

Questions 4, 5, 6, 7, and 8

4. Would you please list your educational and professional qualifications?

5. What is your total experience in years in the library/information field?
6. How long have you been employed in this firm?

7. When was a professional librarian first appointed to this firm?

8. Are you employed
   ___ Full-time
   ___ Part-time (If part-time please state how many hours per week you work)

These questions were included as a check in case any unforeseen answers were given when problem areas of service were discussed both by staff respondents and the librarians.

It seemed possible that one librarian might be having problems not experienced by the others, and this could be due to lack of experience, insufficient education or perhaps a need for extended hours in a part-time situation. Because of the small number of libraries participating in the survey, it was realised that no conclusive evidence would be provided, but rather one or two interesting situations, which might point to the need for further study at a later date.

Questions 9 and 10

9. How much did your firm spend on library and information services (excluding salaries) in 1984? Please include subscriptions to newspapers, and all publications, whether or not they are the Librarian's responsibility.

10. How much will your firm spend on library and information services (excluding salaries) in 1985? Please include subscriptions to newspapers, and all publications, whether or not they are the Librarian's responsibility.
These questions were asked because it was expected that budget figures would assist in comparing the status of the libraries with each other, and would also give some idea of the recognition given by management to the need for an information collection.

Questions 11 and 12

11. What services/facilities does your library offer?

___ a quiet place to work
___ a catalogue to publications held
___ lending of publications
___ indexing of journal articles
___ preparation and distribution of lists of new books, journal articles, etc.
___ a current awareness service
___ recommendations to staff for specific books or journal titles to be bought
___ acquisition of publications
___ information and reference services
___ computer database searching
___ journal circulation
___ compilation of bibliographies
___ inter-library loan
___ photocopying of library publications
___ reader education
___ other, please specify
12. Which of the services that the library now offers were available before the appointment of a professional librarian?

___ a quiet place to work
___ a catalogue to publications held
___ lending of publications
___ indexing of journal articles
___ preparation and distribution of lists of new books, journal articles etc.
___ a current awareness service
___ recommendations to staff for specific book or journal titles to be bought
___ acquisition of publications
___ information and reference service
___ computer database searching
___ journal circulation
___ compilation of bibliographies
___ inter-library loan
___ photocopying of library publications
___ reader education
___ other, please specify

Question 11 asked the librarians to specify the services and facilities that were offered as part of the library function. This question was included as a check on Question 11 in the Questions for Professional Staff questionnaire which asked staff how useful the various library services were. It was necessary to ensure that the librarians were in fact offering all the services listed. The librarians were then asked in
Question 12 to indicate which of the services currently offered by the library were available before their appointment to the job. While much of the survey was directed towards establishing qualitative differences in services, these questions tried to show a quantitative result that would be visible both to the librarian and her management.

Question 13

13. Do you keep statistical records of library use? If yes, would you please write down any statistics you kept for the 1984 year (e.g. numbers of loans, inter-library loans, number of publications catalogued, literature searches, reference queries, photocopies made, Library Bulletins issued, etc.)

Question 13 continued the theme of obtaining quantitative results, and asked the librarians for any statistics they had kept for any of the various services offered. Here again, it was recognised that because of the small number of libraries in the study, statistically significant information would not result, but the results could be of comparative interest to each of the librarians.

Question 14

14. In the pre-establishment period of the library, was there:

____ A library staffed by a person who was not a qualified librarian
____ A library, unstaffed
____ Masses of material scattered throughout the office
____ The library truly started from "scratch"
____ Other, please specify

This question was a duplicate of the first question in the Survey of Questions for Professional Staff. It was adapted from Christianson's
study on new special libraries. It attempted to find out what publications were available for staff use before the appointment of a librarian, and was included here to check the validity of the answers given by professional staff.

Question 15

15. Do you feel that your library is "established" - that is, healthy and thriving, or do you feel its future is shaky? In particular, if you left the firm, are you confident that you would be replaced by another professional librarian?

This question was phrased exactly as it was for the professional staff questionnaire and was adapted from Christianson's survey on new special libraries. It was asked so that the librarians' answers could be compared with those from the professional staff. The object of the question was to establish whether there was widespread acceptance of the librarian as a professional in the first questionnaire, and in the second questionnaire, to test whether the librarian was aware of that acceptance (if in fact, it was proved to exist.) If however, some people felt that the future of the library and the employment of a professional were not secure, would the librarian know?

Questions 16 and 17

16. Do you have any problems in running the library?

17. Are there any other comments you would like to make about your library and/or its services?

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387 Christianson, p. 60.
388 Ibid., p. 63.
Questions 16 and 17 were open-ended questions asking the librarians to indicate if they had any problems in running the library, and inviting comments on the library and its services. All the librarians surveyed took the trouble to include interesting information about their relationships with management, and the particular idiosyncrasies of the firm as they saw them.

15.9 QUESTIONNAIRE STRUCTURE

The original model for the questionnaire was Christianson's study of new special libraries in the Illinois area. Christianson and the Committee on New Special Libraries (CONSL) asked their questions only of librarians. As has been shown earlier, the growth of special libraries in New Zealand is of recent origin, and one of the objectives of this study was to assist the proliferation of special libraries by demonstrating the tangible benefits found by staff in firms where special librarians had been recently employed. For this reason, this study wanted to demonstrate to business people in positions of responsibility that other business people had found that it did make a difference to the quality of their decision making, and that savings could be made in time and money, by employing a librarian. In this way, librarians could not be accused of making "jobs for the boys", when asked to survey a firm to see if employment of a librarian was warranted.

It was, therefore, important to ask the questions of the professional staff rather than the librarians, although naturally the librarian's perspective on the operation of the library was needed to give a total picture.

389 Christianson, pp. 60-63.
It was decided not to include the goal, management, librarian, user and economic factors which were an extensive section of the CONSL survey, for two reasons. Firstly, each of the 39 factors required a separate answer, and it was believed that the professional staff respondents would not have the time to complete such an extensive questionnaire. Secondly, with the knowledge gained from the first survey of this thesis that many people in businesses are unaware of the detail of information gathering in their firms it was believed that many of the respondents would not be able to answer the factor questions in the CONSL study.

The CONSL question asking how the first librarian of the firm was hired was also not included. Usually in New Zealand, librarian positions are advertised in the press, or on a few occasions, a librarian known to someone in the firm will be offered a job, but the library schools and the New Zealand Library Association are not directly involved in the employment of librarians.

15.10 EXPECTATIONS

The studies of the six new special libraries and their growth from establishment to the time of the survey, were researched on a case study basis using self-completed questionnaires. As Moore says:

Case studies provide a means of covering a large amount of ground for an acceptable cost. More particularly, they provide a means of looking in some depths at complex problems.

This study did not require the statistical validity of survey samples as it was concerned more with qualitative than quantitative results.

390 Ibid., pp. 61-63.
391 Ibid., p. 60.
392 Moore, p. 46.
The librarians in the survey were given a summary sheet of the answers given by their professional staff, as well as direct quotes from the comments given. This enabled them to change some of their services to meet expressed needs. The librarians will also be given a summary report giving a comparative evaluation of all the libraries in the survey, with only their own firms identified.

It is hoped that in time, all special librarians, but more particularly librarians of new special libraries, will use this questionnaire to assist them in the development of their services to the highest standards. Meantime, some librarians have been asked to think perhaps more carefully than they would otherwise, and may have modified their behaviour and their services as a result.
Chapter 16

QUESTIONNAIRE RESULTS - FIRM A

16.1 QUESTIONS FOR PROFESSIONAL STAFF

Firm A was a small law firm of patent attorneys with a total staff of 32 - 28 working full-time and four part-time. There were six partners. The professional librarian was appointed in February 1985, and had been in the job just five months when the survey was made.

16.2 THE RESPONDENTS

Eight people met the criteria for answering the questionnaire - that is, they were professional staff working for the firm before the appointment of a professional librarian, and were still employed there. One partner was overseas, so that seven questionnaires were distributed and seven were returned, giving a 100 percent response rate.

Five of the respondents were partners of the firm, and two were technical assistants. There was at least one respondent in every age group between 21 and 50. Although the two youngest respondents had been in the firm for only one year, two other respondents had been there for 18 and 21 years respectively. This helped to give a balanced view.
16.3 THE 'BEFORE' SCENARIO

The librarian reported that before her appointment there was a library in a room set apart for the purpose. One of the firm's partners had overall responsibility for the collection although the library was not staffed. Six staff members agreed that this was the case, but one person thought that there had been masses of material scattered throughout the office.

16.4 APPOINTMENT OF THE LIBRARIAN

All seven respondents to the questionnaire agreed that one of the reasons that was influential in the firm's decision to appoint a professional librarian was the need for more comprehensive information to assist decision-making. Four people said that technological innovations in the information field called for in-house expertise, while the other three said that the amount of information held had expanded rapidly. One said that the availability of funds was an influential factor, while another said that access to inter-library loan was needed. Additional reasons given were "the need to relieve pressure on the partner organising the library" and "cost efficiency of information retrieval required another staff member."

None of the respondents mentioned that there was a "trigger" event (as identified by the CONSL study)\textsuperscript{393} which accelerated planning for the position of Librarian. This "trigger" was my request to one of the firm's partners to participate in the first survey of this thesis. The partner agreed, subject to me giving him reciprocal time in which to discuss the benefits that could be brought to the firm by the employment of a professional librarian. This request was, of course, readily

\textsuperscript{393} Christianson, p. 4.
agreed to, and the partner took copious notes, which were to form the basis of a memorandum to his fellow partners. Neither the present librarian, nor I, have seen this memorandum.

Eight weeks after the interview, the partner concerned contacted me by telephone to say that approval had been given to appoint a qualified librarian, initially for 20 hours per week. I was also asked to assist with preparation of the advertisement, and with interviews.

The librarian appointed took post some two months later, and now works virtually full-time. This firm is quite small by New Zealand standards (a total staff of 32), and it is noteworthy that currently it is the only firm of patent attorneys and the smallest law firm to employ a professional librarian.

16.5 THE VALUE OF INFORMATION
Six respondents found the library/information collection essential, and said that they needed ready access to information several times a day. The seventh found the collection very useful, but needed access to information only once a day on average.

16.6 INFORMATION SEEKING PATTERNS
All seven respondents to the questionnaire sometimes ask the librarian to research to find information for them. Five often do their own research, and four of them, will go to the library several times a day for this purpose. Four people, all partners, sometimes ask someone other than the librarian to do their research for them, usually a more junior staff member.
The information seeking pattern in this small law firm is different to that of the larger law firms, because there are more partners than junior legal staff, so that partners undertake a higher proportion of information seeking. In the larger law firms, it is more likely that partners will ask junior members of staff (staff solicitors) to find information for them.

When asked where they go first when seeking information, five respondents said that they go to the firm's librarian. The other two said that they go to the firm's library, seeking information for themselves. The main sources of outside information used by members of the firm were government departments, the National Library, others in the same profession, the Wellington District Law Society Library, suppliers, and someone in a university. Consultants in private practice, the local public library, the University Library and SATIS (the Scientific and Technical Information Service) were used occasionally. The fact that all seven respondents were asking the librarian to do information searching for them indicated that this librarian, in her post for just five months, had been successful in marketing her services. If the survey were to be repeated two years after her appointment, it could be expected that the outside sources of information currently consulted, would largely disappear.

16.7 VALUE OF PROFESSIONAL STAFF

All seven respondents to the questionnaire had noticed improvements since the firm employed a professional librarian. Seven people had noted that there had been a reduction in the time they personally spent searching for information. Five thought that access to information was generally easier, while four had noticed an improvement in access to
information sources that were previously either not known or not accessible. Two said that they were more confident that the information being provided for them was correct, current and comprehensive. One respondent commented that s/he had noted that more in-depth consideration was being given to the purchase of publications, while another respondent appreciated "the more regular dissemination of information."

16.8 TIME AND/OR MONEY SAVINGS

Respondents were asked to give an example from their work of a time when by use of the librarian's services, they were able to save time and/or money. Three reported that the librarian had saved them time by ascertaining the availability of technical books. One said that the firm had saved money because the librarian was able to get expensive books on approval for evaluation before purchase. Three examples were given of reference/information work performed by the librarian which had saved the time of other staff. They consisted of research into the value of technical units, tracing existing case law reports, and the provision and collation of publications for a new staff training programme.

One respondent commented on the reports prepared by the librarian from her information search results. He said, "The librarian provides reports when objections are received from the Trade Marks Office to registration of a particular mark. She reports on surname significance, geographical significance or provides a descriptive reference. These reports form the basis of our either reporting to the client, or a submission to be filed in the Trade Marks Office."

Clearly the librarian is adding to the value of her research by presenting it as a report which is used as the basis of the firm's decision-making.
16.9 RANKING LIBRARY SERVICES

In this small law firm the two most useful services provided by the librarian for all seven respondents were information and reference services, and physical control of the collection so that any item held could be located. The next most useful services which were identified as being equally important were the preparation and distribution of lists of new publications and journal articles, the control of publications ordering routines and journal circulation. Together in the next average ranking order were computer database searching, inter-library loan and the preparation of subject bibliographies. Respondents saw the next most useful services as being a quiet place to work, the provision of a catalogue, photocopying, reader education and suggestions for strengthening the collection. The service which came lowest in the ranking order was indexing. However, all of the services provided were seen to be useful by most of the respondents.

16.10 AREAS OF DIFFICULTY IN INFORMATION SEARCHING

Respondents were asked if they had difficulty in getting information in any particular subject areas. Three people replied that they did not have any difficulty, while three other people cited one subject each. They were "biotechnology", "affairs of businesses", and "the lack of technical dictionaries for translation purposes." One respondent said that he had had difficulty getting court decisions, but that this problem had ceased with the appointment of a librarian to trace them for him.

Respondents were asked if they were disappointed in any way with library and information services. Six people said they were not, but one, the youngest of the respondents, gave the "lack of a comprehensive index" as
a source of disappointment. The fact that this respondent had only one year's work experience would seem to account for his/her lack of knowledge about the time needed for a librarian to compile a comprehensive catalogue. It also pointed out to the librarian that not everyone in the firm understood the cataloguing process, and more explanatory public relations in this area would be helpful.

16.11 SECURITY OF TENURE
All seven respondents believed that the library was established and thriving. They were all certain that if the librarian left the firm, she would be replaced by another professional librarian, again indicating how successful this librarian had been in just five months.

16.12 RESPONSIBILITY FOR INFORMATION PROVISION
The last survey question asked respondents to indicate whom they thought should be responsible for keeping staff informed about developments in their area. Three people, two of them partners, believed it was a general responsibility to be shared by all staff; two partners thought it was their personal responsibility; one person, a partner, thought it was the librarian's responsibility, and one said that it was "the responsibility of my area's group."

Here, as in Survey 1 of this thesis, it seemed that the concept of shared information gathering was not fully accepted. Perhaps, in New Zealand business, managers and staff have not yet fully understood that keeping up to date with correct, current and comprehensive information is essential to the satisfactory performance of all people within the firm.
16.13 QUESTIONS FOR THE LIBRARIAN

The librarian of Firm A, a small law firm, holds a New Zealand Library Studies Certificate, and has completed part of a Bachelor of Arts degree, which includes some law units. She has worked in the field of librarianship for eight years, and at the time of the survey had been librarian of Firm A for just five months. Her appointment was the first time that a professional librarian had been on staff, and initially was for 20 hours per week. Within two months however, the hours of work expanded to become almost full-time.

16.14 PROVISION OF SERVICES

Librarian A is offering the full range of services listed in Question 11 (See Appendix J). She also maintains files of confidential information which may be compiled for or from overseas associates. At the time of the questionnaire, not many journal articles were being indexed, but the librarian had begun an index for unreported cases in New Zealand and overseas. Thorough investigation was also being made of a suitable indexing system, probably using computer facilities to compile an index for cases, forms and precedents on topics of interest to the firm.

Before the appointment of a librarian, only four of the present services were available. Publications were bought, journals were circulated, staff could borrow publications, and a list of new books was circulated occasionally.
16.15 BUDGET AND STATISTICS

The budget of Library A in 1984 was $9600, and expenditure is expected to more than double that figure for 1985.

Statistics kept by the librarian for the five months she had been in the position, showed that 168 publications were catalogued, 21 Library Bulletins were issued, 27 books were borrowed on inter-library loan, and about 60 reference enquiries were answered.

16.16 SECURITY OF TENURE AND FUTURE PLANS

The librarian reported that before her appointment the library was in a separate room, but was not staffed. She was sure that even at this early stage the library was established and likely to grow considerably.

Librarian A did not have any problems in running the library. She had had some initial difficulty in discovering what happened to each journal received, and how it was ordered, but all procedures were now operating smoothly.

It is interesting to note that all seven professional staff were certain that if she left, the librarian would be replaced by another professional. Yet, this appeared not to have been communicated to the librarian who was only "fairly sure" that she would be replaced by another professional if she left.

In summarising her position Librarian A said, "Because my position is a new one, there are areas into which more effort can be put (by me) and this will improve the services already offered. The librarian and the library will grow together. The library is presently rather cramped but proposed new premises should remedy this. The provision of a quiet area, with a lot of working space for staff, would be an immeasurable asset."
Chapter 17

QUESTIONNAIRE RESULTS - FIRM B

17.1 QUESTIONS FOR PROFESSIONAL STAFF

Firm B, one of the larger Wellington law firms, had 93 staff working full-time, and six who worked part-time. There were 17 partners.

The librarian of Firm B had been on staff for almost three years at the time of the survey. She was the first professionally qualified librarian to be employed by the firm.

17.2 THE RESPONDENTS

Twenty-seven people in the firm met the criteria for answering the questionnaire - that is, they were professional staff working for the firm before the appointment of a professional librarian, and were still employed there.

Fifteen questionnaires were returned giving a response rate of 55 per cent. The main reason given by those who did not return the questionnaire was that they were too busy. However, the librarian of Firm B reported that the conveyancers on staff were not great users of the library, and five of them did not complete their questionnaires. Conveyancers are lawyers who prepare the documents required for the transfer of property from one owner to another. Law firms usually have their own standard contract forms for this work. The only research generally involved consists of a search of the title deed of the property which is held at the Land Transfer Office. There is therefore, little need for conveyancers to make use of library services.
All staff were reminded twice by the librarian when their questionnaires were overdue, but to keep the goodwill of library users, no further follow-up was made.

Nine of the respondents to the questionnaire were partners in the firm, four were staff solicitors, and two were legal executives. Almost half the respondents (6 out of 15) were aged between 31 and 35, with the rest being distributed in the other age-groups between 21 and 55.

Six respondents had been working in the firm for three or four years, two people had worked for the firm for 19 and 21 years respectively, while two people had been with the firm for 30 years.

17.3 THE 'BEFORE' SCENARIO

All 15 respondents agreed that before the appointment of a librarian there was a library in a separate room in the firm's premises, but the library was not staffed.

17.4 APPOINTMENT OF A LIBRARIAN

Thirteen of the respondents to the questionnaire agreed that the primary reason for the firm employing a professional librarian was recognition of the need to organise information resources. One person said that it was the need for an information service, while another said that "law firms all have libraries of some kind or another."

It was this last answer, and others like it, that drew attention to the implied suggestion in the questionnaire that the library had only started with the appointment of a professional librarian (See Section 15.7 of Chapter 15 - Questions 2 and 3). Four respondents in this firm, all aged over 41, pointed this out, and one summarised their views by saying, "Law practices cannot operate satisfactorily without a library."

They seemed to ignore the fact that their firm had decided that their library could not operate satisfactorily without a librarian.
Eight respondents to the questionnaire agreed that one of the reasons influential in the firm's decision to employ a professional librarian was the need for more comprehensive information to assist decision-making. Six people said it was that the amount of information held had expanded rapidly, while three people said it was because technological innovations in the information field called for in-house expertise. Another reason advanced was that the "chaotic state of the existing 'library' resource meant the large sum spent on books was largely wasted." One respondent enclosed a copy of an inter-office memorandum, the purpose of which was to consider the nature of a law library and its planning and development. It also outlined a programme for future action. Footnote and bibliographical references are not given to protect the firm's identity.

The memorandum recognised that "the problems of law libraries are not necessarily those of libraries in general", and commented that 90 percent of the library's holdings were serials. It recognised "the need for accuracy of annotations and updating as well as for accessibility of (the) total collection". The memorandum also discussed accommodation, loans policy ("mostly honoured in the breach"), user discipline, acquisition policy, binding, periodical circulation, the updating of loose-leaf publications, cataloguing, and inter-library loan. There was also some discussion on the possibility of creating an information bank for the firm, to give offices not in Wellington, access to the information resource. The memorandum concluded that "what we are currently lacking is sufficient injections of staff time. ... We are all coming to the view that a full-time librarian is the answer."

The list of requirements for a full-time librarian included "a mature person ... with some library experience, capable of working on their
own, dependable, capable of doing repetitive... work accurately, with the aptitude to cope with expansion of services in due course. I am not too concerned about their academic library qualifications". The respondent who included the memorandum noted in the margin that this was "modified naturally once we met [our present librarian]."

It was clear that the library planning process was set in motion by this memorandum from a staff solicitor to his senior partners. This is a clear "trigger" identified in the CONSL study,\(^{394}\) where one person took an interest in what seemed to him to be an obvious problem, researched the needs and possible solutions, and supplied evidence to support his conclusions that a full-time librarian should be appointed to the firm. The memorandum was drafted on 27 May 1982, and the professional librarian was appointed in September 1982 - a prompt and successful result.

17.5 THE VALUE OF INFORMATION

Fourteen people said that they found the library/information collection essential, while one person found it useful. Eight respondents needed ready access to information several times a day, five people once a day, and two people twice a week.

17.6 INFORMATION SEEKING PATTERNS

Most people in Firm B use one of three ways when they need to undertake research to find information. Thirteen people said that they sometimes get someone else, other than the librarian to do their research, 12 people said that they sometimes get the librarian to research for them, and 11 people may do it themselves. Only one person claimed to use the library several times a day, while seven people said they used it once a

\(^{394}\) Christianson, p. 4.
day. Three people said that they would use the library once a week, and another three people said they would use the library once a fortnight. One person said that he would use the library only once every six months. He was a conveyancer with few research needs.

When asked where they go first when seeking information, nine people said that they go to the firm's librarian. Another person said s/he would go to the library and "to the librarian if necessary." One respondent would seek the required information within the firm through its "precedent and opinion system, or other members of the firm." This is a typical example of the use of the traditional personal information source discussed in Section 13.1 of Chapter 13. Another respondent stated that s/he "could go to any of the [13 sources] above" depending on the question to be answered. Only one person reported that s/he would go outside the firm, and in this case the Wellington District Law Society would be the first choice.

The main sources of outside information used were the Wellington District Law Society Library, government departments, and others in the same profession. Sources consulted occasionally included the local City Council, suppliers, someone in the University or its library, consultants in private practice, and the local public library. It seemed likely that the librarian would be consulted at some time during staff searches for information, but less than two thirds of the respondents would seek out her knowledge first of all. In her questionnaire, the librarian commented that she had difficulty in developing services because she had no clerical help. Given a staff of 99, it seems likely that any further marketing of her services would mean she was over-committed, and unable to service the needs of existing clients.
17.7 VALUE OF PROFESSIONAL STAFF

Most respondents to the questionnaire had noticed at least four improvements since the firm employed a professional librarian. They were more confident that the information being provided was correct, current and comprehensive, and had noticed a reduction in the time that they personally spent searching for information. Also noted were improvements in access to information sources that were previously not known or not accessible, and generally easier access to information wherever it was held. Three people had noticed some improvement in the elimination of duplication of research.

17.8 TIME AND/OR MONEY SAVINGS

Respondents were asked to give an example from their work of a time when by use of the librarian's services they were able to save time and/or money. Two people said that they found it hard to give specific examples, but because "an organised and accessible library resource is essential to legal practice, the effect of using the Librarian" has been to save clients money because it saved the time of the lawyer.

The other examples given all referred to time rather than money savings. Two people referred to the librarian obtaining photocopies of journal articles on a specific topic, and five people said the librarian "frequently" saved them time by obtaining articles, copies of judgments and statutes, and a comprehensive list of cases required for opinion work or legal research projects. Two other time savings given were the fast supply of copies of unreported New Zealand cases, and research into material for a Conference paper. Another respondent said "I knew I had seen somewhere an article about a scandal in Singapore. The Librarian was able to track down references in the Economist and get some
information from Singapore." The various examples of time savings suggest that many members of the firm have learnt to use the librarian's expertise to their advantage.

17.9 RANKING LIBRARY SERVICES

The two most useful services provided by the librarian were identified by the respondents as being the provision of a catalogue, and the control of publication ordering routines. Next in the average ranking order came computer database searching and the indexing of journal articles. Following them was journal circulation, and next came reader education and suggestions for strengthening the collection. A quiet place to work, the provision of subject bibliographies, and inter-library loan were seen as the next most useful services, and they were followed by information and reference services, the preparation and distribution of lists of new books and journal articles, and the physical control of the collection so that any item held can be located. The service which came lowest in the ranking order and was not seen as useful, was photocopying.

Most of the services offered were seen to be useful by most of the respondents. However, four of them noted that photocopying was not at all useful, and three of the same four also said that a quiet place to work was not needed. Another respondent, a conveyancer, reported that inter-library loan was of no use to him.

It seemed surprising that the provision of information and reference services should rank so low. The control of publications after purchase through cataloguing, indexing, and circulation, as well as assistance with book selection and control of their ordering routines suggests there may be some preoccupation within the firm to get a return on the investment in library publications.
However, as has been pointed out already in the section on information seeking patterns, it seems likely that further staffing is needed in the library before information and reference services can be developed further.

17.10 AREAS OF DIFFICULTY IN INFORMATION SEARCHING

Respondents were asked if they had difficulty in getting information in any particular subject areas. Fourteen people said that they did not have any difficulty and were not disappointed in any way with library and/or information services. One person said that he had difficulty in finding out whether the firm had already researched or advised a client on a particular issue. In expanding his remarks, the same person, a partner, said that his disappointment was that there was as yet "no sophisticated cross-referencing for our Opinion record system." He went on to say that "although it is probably too big a task for one person, I hope one day we can develop or buy a system which will integrate subject indexes for legal journals, cases, and our own research." He noted that because there was no such system within the firm "there is much duplication of research."

The need for indexing and cross-references to opinion work in legal firms was mentioned in the first survey of this thesis (see Section 8.10 of Chapter 8). It should be an encouragement to Firm B's librarian that this partner recognises the large amount of work involved in establishing such a system.
17.11 SECURITY OF TENURE

All 15 respondents believed that the library was established and thriving. Thirteen people were sure that if the librarian left the firm, she would be replaced by another professionally qualified librarian. One person commented that it would be a "great loss if she left." Clearly, the position for a professionally qualified librarian is well established in this firm.

17.12 RESPONSIBILITY FOR INFORMATION PROVISION

The last question asked respondents to indicate whom they thought should be responsible for keeping staff informed about developments in their area. Nine people said that it was a general responsibility to be shared by all staff, and one of the nine added that it should be "coordinated and overseen by the Librarian." Five people said that keeping staff informed about developments should be the personal responsibility of partners, while one person said that the responsibility belonged to the librarian.

At the end of the questionnaire one lawyer gave his opinion. He said, "This questionnaire is slightly misdirected in relation to lawyers. Information is our business not merely an adjunct. Therefore, library resources, in the narrow sense, are only a small part of the information system."

17.13 QUESTIONS FOR THE LIBRARIAN

The librarian of Firm B, one of the larger Wellington law firms, holds a Bachelor of Arts degree, the Diploma of the New Zealand Library School, and has passed two law papers at University. She has worked in the field of librarianship for six and a half years, and at the time of the
survey, had been librarian of Firm B for one month short of three years. She was appointed to the full-time position in September 1982, and was the first professional librarian to be appointed by the firm.

17.14 PROVISION OF SERVICES

Librarian B is offering the full range of services listed in Question 11 (See Appendix J). She commented that her indexing of journal articles is selective, and that she circulates only a limited number of journals, because the library basically has a policy of non-circulation. She also tends to access local libraries through personal contacts, rather than through the inter-library loan system. In addition, she has established and maintains a professional profile and bulletin on individuals within the firm, and she assists each year in the education of three or four foreign students in aspects of New Zealand law.

Before the appointment of a librarian, only three of the present services were available. There was a catalogue to the publications held, which had been compiled by the present librarian on a part-time basis in 1979 and 1980, publications were bought, and journals were circulated.

17.15 BUDGET AND STATISTICS

The budget of Library B in the 1983/84 financial year (April-March) was $51,687. The firm's financial year was then changed from January-December, and the budget expenditure for 1985 is estimated at $65,087.

The librarian of Firm B had not kept statistics which indicated how many literature searches and reference queries she had undertaken in 1984. She began keeping statistics of these services in 1985. However in 1984 she added 460 titles to the accessions register, borrowed 20
publications on inter-library loan, six of which were international inter-loans, and issued 45 Library Bulletins.

17.16 SECURITY OF TENURE AND FUTURE PLANS

The librarian of Firm B reported that before her appointment, the Library was in a separate room, but was not staffed. She said that she believed the library was established, and that if she left, she would be replaced by another professional librarian. The librarian reported that she tried "to keep the library running, as far as possible, on non-traditional lines". She said also that she tried to ensure "that partners and staff begin to recognise the Library and Librarian as a starting point for most of the information needs." She was "attempting too, to integrate the library electronically into all the other information systems within the firm." Librarian B identified her main problem in running the library as being the lack of clerical help. She wanted to develop services, but noted that it was "extremely difficult" to do so, "without at least half-time clerical help."
Chapter 18

QUESTIONNAIRE RESULTS - FIRM C

18.1 QUESTIONS FOR PROFESSIONAL STAFF

Firm C, another of the large Wellington law firms, had 64 full-time staff, and four who worked part-time. There were 15 partners. The professional librarian had been employed for 16 months at the time of the survey, and the only other professional librarian employed by the firm had been employed for the three months prior to the present incumbent's appointment.

18.2 THE RESPONDENTS

Twenty-six people in the firm met the criteria for answering the questionnaire - that is, they were professional staff working for the firm before the appointment of a professional librarian, and were still employed there. Twenty-four questionnaires were returned, giving a response rate of 92.3 percent.

Thirteen of the respondents to the questionnaire were partners in the firm, two were associates, and eight were staff solicitors. The Office Manager also answered the questionnaire. Twenty of the respondents were aged under 40. Two people were aged between 41 and 45, and one person was in the 61-65 age group.

Eight people, five of whom were in the two youngest age-groups, had been with the firm for three years or less, while four had between 15 and 21 years' service. The total length of time that respondents had been in their professional field ranged widely from 18 months to 42 years.
18.3 THE 'BEFORE' SCENARIO

The Librarian reported that before her appointment there was a library in a room set apart for the purpose, but it was unstaffed. In addition, masses of material was scattered throughout two buildings. Twenty-three respondents agreed that before the appointment of a professional librarian there was a library that was not staffed, and only one person admitted that there were masses of material scattered throughout the office.

18.4 APPOINTMENT OF A LIBRARIAN

The prime reason for starting a library and appointing a professional librarian was seen by 15 respondents to be recognition of the need to organise information resources. Seven respondents believed it was the need for an information service, and one person saw it as the firm's response to the need to update legal annotations, etc.

Fifteen respondents to the questionnaire agreed that one of the reasons that was influential in the firm's decision to employ a professional librarian was that the amount of information held had expanded rapidly. Twelve people said it was because of a need for more comprehensive information to assist decision-making, while three people believed that it was because technological innovations in the information field called for in-house expertise. Three people said that a library is "essential to a law practice", and two people said that the firm had "to bring order to the chaos." One person postulated that "because of the rapid growth in the size of our firm, we became more conscious of the need to manage our resources more efficiently" and another said "the extent of the library, the flow of material, and indexing and issuing requirements demanded the attention of one person, preferably trained. Another person suggested the development occurred because funds were available."
One quickly sees the 'before' scenario as a rapidly expanding firm with a large accumulation of publications, in some disorder. The need to gain access to the information to assist decision-making, possibly using modern computer technology, led to the appointment of a qualified librarian.

18.5 THE VALUE OF INFORMATION

Twenty-three people found the library/information collection essential, and one person found it very useful. All 24 respondents said that they needed ready access to information several times a day.

18.6 INFORMATION SEEKING PATTERNS

Twenty-two people often do their own research to find information, and 17 people often get someone else, other than the librarian, to do it for them. One person always gets someone else to do his/her research. Eight people sometimes get the librarian to do their research. Although it would seem from these results that the librarian is not always the first point of reference when people are seeking information, it seems that the library/information collection may be. Twelve people make use of the library several times a day, ten people use it once a day, and two people use it once a week on average. This view was confirmed by eleven people who said that when they are seeking information they go first to the firm's library. One added "Mind you, going to the firm's library leads to the firm's librarian." Nine people, however, said that they go first to the firm's librarian.

Asked where else they go in seeking information, 16 people said that they go to the Wellington District Law Society Library, and ten people consult government departments. Nine people ask someone in a profession
similar to their own, another example of traditional personal information sources.

The local City Council, suppliers, someone in a University and consultants in private practice were also cited as outside information sources. Two people have used the University Law Library, and another two claimed to have asked for information from the National Library. One respondent in each case said that occasionally information had been sought from SATIS, the Standards Association, the local public library, someone in a technical institute, and "my professional colleagues in the firm." One person said the he would seek information wherever it is "likely to reside - that will depend on the nature of the information sought."

18.7 VALUE OF PROFESSIONAL STAFF

All but one of the respondents to the questionnaire said they had noticed improvements since the firm employed a professional librarian. Seventeen people thought that they had generally easier access to information wherever it was held, and 15 people had noticed a reduction in the time they spent searching for information. Fourteen people said that they had more confidence that the information being provided for them was correct, current and comprehensive, and ten people said they now had access to information sources that were previously not known or not accessible. One person thought that the duplication of research had been eliminated.
Respondents were asked to give an example from their work of a time when by use of the librarian's services, they were able to save time and/or money. Surprisingly, 12 people did not answer this question. Four of them were conveyancers, which would seem to confirm Librarian B's comment that conveyancers are not great users of library services. If they had rarely used library services, they would not be likely to have examples to cite.

There could be another possible answer. Librarian C works part-time for 24 hours per week. If eight staff, other than conveyancers, can not give examples of time and money savings, it may be that increased working hours are needed for the librarian to be able to market her services. Extra time on the job would mean that she should be able to serve more people more effectively than presently appears to be the case.

No-one gave an example of money being saved by the firm, but seven people reported on time being saved through the efficiency of in-house systems set up by the librarian. Some of the comments made were:

"The setting-up of index and issue control systems has saved everybody time";

"It is easier to find things, and material is returned more quickly";

"The principal impact of the Librarian is that it avoids the need to search the office quite so often for a text or journal";

The librarian saves us time by "maintaining the loose-leaf systems" and in the "procurement" of publications which was "previously done by partners"; and

"The Librarian helped with the library expenditure budget for the firm's budget."
Other comments on time being saved were made by six people and related to reference services and inter-library loan. They included:

"Our Librarian cheerfully obtains promptly and reliably, any information I need, not held in the Library";
"I do not have the expertise/contacts/know-how that she has regarding [the] accessing of information";
"She frequently obtains material for me saving my time";

The librarian saves us time by "obtaining unreported Court judgments";
The librarian saves us time by "procuring reference material from other libraries on specialist topics"; and

The librarian "has saved me time on numerous projects" such as "putting together a collection of indexed materials relating to Securities laws."

18.9 RANKING LIBRARY SERVICES

The two most useful services provided by the librarian were identified by the respondents as the provision of a catalogue and the preparation and distribution of lists of new books and journal articles.

Next in the average ranking order together were physical control of the collection so that any item held could be located, and journal circulation. Then followed information and reference services and the control of publication ordering routines. Four services were then ranked equally. They were a quiet place to work, indexing of journal articles, the preparation of subject bibliographies and suggestions for strengthening the collection. Next in average ranking order was reader education which was followed by inter-library loan.

The services which were not seen as useful were computer database searching and photocopying. Secretarial staff probably provide photocopying, so that this service is not essential from the librarian.
Currently, the librarian does not undertake computer database searching, so that staff would have no experience of its usefulness.

### 18.10 AREAS OF DIFFICULTY IN INFORMATION SEARCHING

Respondents were asked if they had difficulty in getting information in any particular subject areas. Sixteen people replied that they did not have difficulties in this area, while six others did not reply suggesting tacit approval of services. Only two people gave examples of subjects where they had had difficulty in finding information. One was Canadian tax cases, and the other was "specialised areas not catered for in our library."

Respondents were asked if they were disappointed in any way with library and/or information services. Fourteen people said that they were not disappointed with services and five people did not answer the question, suggesting through tacit approval that they had no complaints. Five people did have some disappointments with some aspects of the service. They were: "Remoteness - I have to walk nearly a city block to get there - one of the bad features of a large office"; "I think I get too much information passing over my desk now. I don't have time to assimilate it all. She still needs to explain more how she can help us"; "Our information base is insufficient. We need computer retrieval ability"; "Some journals and statues are incomplete"; and "There is lack of control of loans of publications - books I need are too often elsewhere."

While the librarian may not be in a position to influence the re-location of the library to a more central position, she should be in
a position to ensure that staff do not suffer from information over-load. Two people agreed that the library collection needs strengthening. The librarian should investigate specific needs, check on the missing journals and statutes, and prepare a submission requesting funds so that these negatives are turned into positives.

When loans procedures are inefficient, as is suggested by one staff member, it may indicate that there is insufficient library staffing. Information searching has to have precedence over routine maintenance tasks. This could in fact, be the reason for all the above disappointments. It may be simply that 24 hours per week does not give enough time for the librarian to service almost 70 staff effectively.

18.11 SECURITY OF TENURE

Twenty people believed that the library was established and thriving. Four people did not agree with that view. Two people thought that the library "needs more establishment", one person said "must expand", while another respondent amplified that view by saying, "There is quite a way to go in terms of a comprehensive collection, space and database development."

Twenty people thought that if the librarian left the firm she would be replaced by another professional librarian. Three people of 20 expressed some uncertainty by qualifying their answers with either "Probably" or "I hope so." On balance, the library and the professional librarian are seen as necessary, but attention to basic collection development would help strengthen that view.
RESPONSIBILITY FOR INFORMATION PROVISION

The last question asked respondents to indicate whom they thought should be responsible for keeping staff informed about developments in their area. Twelve people thought that it was a general responsibility to be shared by all staff, while three people each thought it was either the librarian's responsibility or the personal responsibility of partners. Two people stated that they thought that the responsibility rested with all three of the above groups, and two people seemed to have collaborated on an answer, for both of them said, "Both Librarian and partners have a responsibility. The Librarian's is to keep staff informed of general developments (and more specific ones when she is aware of any special interests they have) and the partners is of more specific developments in the particular area in which they specialise, and the consequences of those developments." Overall, it seemed that more than half the respondents were aware that information should be gathered and shared by all staff, to enable better performance by all team members.

QUESTIONS FOR THE LIBRARIAN

The librarian of Firm C, one of the larger Wellington law firms, has a Bachelor of Arts degree, a Teaching Diploma and Certificate, and the New Zealand Library School Diploma. She has worked in librarianship for seven years, and at the time of the survey had been in her present position for 16 months. A professional librarian had been employed for three months as a vacation worker prior to the present incumbent's appointment, to assist with the unpacking and sorting of library publications after the firm moved to new offices. The position is part-time, with the librarian working for 24 hours per week.
**18.14 PROVISION OF SERVICES**

Librarian C is offering all but two of the services listed in Question 11 (see Appendix J). She does not compile bibliographies or undertake computer database searches. She hopes to begin on-line searching in 1986 when upgrading of the firm's computer hardware will be complete. However, she does some reference work for the Auckland office of the firm, as their librarian is not professionally qualified.

Five of the present services were available before the professional librarian's appointment. They included a quiet place to work, the self-service loan of publications, preparation and distribution of lists of new books, journal circulation and the acquisition of new publications.

**18.15 BUDGET AND STATISTICS**

In 1984 Firm C spent $43,509 on library services. Its budget for 1985 is $44,400. Librarian C reported that she had been able to make considerable savings within the firm by rationalising subscriptions, after the merger of two law firms which took place as she took post. She also introduced savings by arranging for the binding of journals, instead of subscribing to bound volumes.

Librarian C has not so far kept any statistical records of library use, which adds weight to the suggestion that she does not have enough time on the job.
The librarian reported that before her appointment the library was housed in a separate room, but was unstaffed. Masses of material was also scattered throughout many offices. She said that she believed the library was established, and that she would be recommending replacement by another professional librarian if she left the firm.

The main difficulty that Librarian C reported in running her firm's library was that of getting senior partners to use the library's reference facilities. She said that they preferred to use law clerks for this work.

While it is understandable that Librarian C would like to have visible support from the firm's partners through their physical presence in the library, it seems that she may be unaware of the typical pattern of information searching in law firms. Searching for case law, opinions, and for more general information is usually undertaken by law clerks and/or staff solicitors. In order to seek the support of partners, Librarian C should either arrange to see them and ask for suggestions and/or their constructive criticism for library developments, or she should use the usual legal office procedure of writing memoranda to more senior staff, seeking comment and support on policy matters.

As has been noted previously, it is possible that all staff are not being serviced by the librarian, and the expansion of library staff hours would give more time to enable more effective service. The librarian did not address this question - perhaps because it is not convenient for her to work extra hours, or perhaps because she was unaware of any dissatisfaction with her services until they were revealed by this survey questionnaire.
This gives an indication that a user study undertaken in the early stages of a library's establishment can be worthwhile in ensuring tangible benefits for its users. It also would assist the librarian to provide required services. If the librarians of all newly established libraries were prepared to undertake such a survey, using the methodology of this questionnaire, one of the aims of this research would have been achieved.
Chapter 19

QUESTIONNAIRE RESULTS - FIRM D

19.1 QUESTIONS FOR PROFESSIONAL STAFF

Firm D is another of the larger Wellington law firms, with a full-time staff of 90, and seven part-time staff. Nineteen people are partners. The librarian of Firm D was the first professional librarian to be appointed by the firm. She worked for 25 hours per week, and at the time of the survey had been in the position for two years.

19.2 THE RESPONDENTS

Twenty-five people in the firm met the criteria for answering the questionnaire - that is, they were professional staff working for the firm before the appointment of a professional librarian, and were still there. One was away on extended leave, so that 24 questionnaires were distributed. Twenty-three were returned giving a response rate of 95.8 percent.

Seventeen of the respondents to the questionnaire were partners in the firm, and two were associates. Two were staff solicitors, one an accountant, and one was the office manager.

There was at least one respondent in every age group from 21 to 60, with eight people aged between 36 and 40.

All the people surveyed in Firm D had been there for at least two and a half years, six people had been there for 13 or 14 years, and two people had served the firm for 30 and 32 years respectively. The total
experience of the respondents in their professional field ranged widely from two and a half years to 38 years.

19.3 THE 'BEFORE' SCENARIO

All 23 respondents agreed that before the appointment of a librarian, there was a library, in a separate room, but there was no staffing for it.

19.4 APPOINTMENT OF A LIBRARIAN

The organisation's primary expressed reason for employing a professional librarian was seen by 15 people to be recognition of the need to organise information resources. Seven people believed it was the need for an information service, while one person thought that both factors were of equal importance in making the decision. Thirteen respondents to the questionnaire agreed that one of the reasons that was influential in the firm's decision to employ a professional librarian was because there was a need for more comprehensive information to assist decision-making. Thirteen people also thought that one of the reasons was that the amount of information held had expanded rapidly. Another gave a reason for this rapid expansion. He spoke of the merger of two firms which had resulted in both surplus and out of date publications being held in the library.

Six respondents said that one of the influential reasons in the appointment of the librarian was that technological innovations in the information field called for in-house expertise. Only one person thought that the development had occurred because funds were available.

Only two people took this question literally, and commented in the 'Other' option that law firms always had libraries as "essential
stock-in-trade." Both these respondents were aged between 36 and 40. As stated in the Methodology section, this question should not have implied that the library only began with the appointment of a professional librarian, although the intent of the question was clear to most respondents.

The most accurate picture of development seemed to come from the respondent who said, "An informal assessment of the firm's future needs indicated that on moving to new premises we would need an upgraded and consolidated service that required a qualified librarian to maintain and plan our development of information resources."

19.5 THE VALUE OF INFORMATION

Twenty people found the library/information collection to be essential, while three people found it very useful. Thirteen people said they needed access to information several times a day, five needed information once a day, one twice a week, and another once a fortnight. One person, the firm's accountant, said that s/he needed information only "occasionally", while the office manager replied that his/her need was "nil."

It is of interest to note that in this firm six respondents undertook conveyancing work but also had other responsibilities. Three of them said that they needed access to information once a day. Unlike those in Firm B, these conveyancers are clearly oriented to the use of library facilities.
19.6 INFORMATION SEEKING PATTERNS

Seventeen respondents to the questionnaire sometimes get the librarian to undertake research to find information for them, while 16 often research themselves. Fifteen people sometimes get someone else, other than the librarian, to research for them, and two people always get someone else, other than the librarian, to do their research.

When asked where they go first when seeking information, 13 people said that they would go to the firm's librarian. Another eight said that they would go to the library, indicating that the librarian and the library have a high profile within the firm. One person would seek information in the first instance from a colleague within the firm, indicating that s/he needed advice on potential information sources - and this could be expected from one who was the youngest respondent.

Only one person would go first to a source outside the firm - in this case to the Wellington District Law Society Library.

It was also the Wellington District Law Society Library that was the main source of information outside the firm for 14 respondents. Ten go to government departments, and nine to others known to them in the legal profession. Occasional information sources noted were the Wellington City Council, the National Library, the local public library, or consultants in private practice. Two people have used the University Law Library, and University personnel and suppliers were noted by one person each.

One person paid the librarian a compliment when s/he said, "In reality I have not had to go further than the librarian as she does a superb job in locating whatever I want, wherever it is."
The role of librarian in this firm seems to differ somewhat to those already reported. The librarian and the library are clearly accepted as the main source of information, although the librarian may not actually undertake all the research work. Rather she may be used to advise on information sources. A happy compromise seems to have been reached between librarian and staff, almost certainly informally, but of necessity, because a librarian working 25 hours per week would not be able to cope with full information searching services for almost 100 staff.

19.7 VALUE OF PROFESSIONAL STAFF

All respondents to the questionnaire had noticed at least two areas of improvement since the firm had employed a professional librarian, and most had noticed from three to six improvements. Twenty-one now found that they had access to information sources that were previously not known about, or were not accessible. Just on two thirds of the respondents had noticed that they had generally easier access to information wherever it might be held; that there had been a reduction in the time that they personally spent in information searching; and that they had more confidence that the information being provided for them was correct, current and comprehensive. Four people believed that the duplication of research in the firm had been eliminated.

One person commented that s/he appreciated getting "regular advice on the availability of information relevant to my field of practice." Another said that information sources were now "centralised, accessible, properly catalogued, controlled and supervised, and the problem of 'walking books' had been minimised."
TIME AND/OR MONEY SAVINGS

Respondents were asked to give an example from their work of a time, when by use of the librarian's services, they were able to save time and/or money. All 16 examples given were concerned with time saving, and two people gave two examples each. Of the examples given, four people pointed to the time savings in their perusal of publications which was not now necessary because of the regular information service where "the Librarian highlights articles and supplies copies of material in (my) areas of special interest."

Other areas mentioned where people were aware that time savings had been made were in research for conference papers, the tracing of a case report which was remembered "only vaguely", the provision of information on subjects such as "takeovers", "out-of-the-ordinary accounting questions", "building methods and materials suitable for earthquake-prone territory in Chile", biographical information on members of a government commission, circulation statistics of New Zealand newspapers, and the supply of a Code of Ordinances for the Eastbourne District Scheme.

One respondent commented on a report prepared by the librarian and a staff solicitor using research results obtained by the librarian. He said, they "prepared a background paper containing supporting information, (economic, financial and statistical) for a wage claim. This joint effort saved me many hours of research." The same respondent said that he could give many other similar examples. Clearly, this librarian, like Firm A's librarian is adding to the value of her research by presenting it in report form, so that it can be used as the basis for negotiation and/or decision-making.
19.9 RANKING LIBRARY SERVICES

Respondents were asked to identify the most useful services for them that were offered by the librarian. The service gaining highest ranking was the provision of information and reference services. The next two most useful services were the provision of a catalogue and the preparation and distribution of lists of new books and journal articles. Next equal in the average ranking order came physical control of the collection so that any item held could be located, control of publication ordering routines, and journal circulation. Then followed the indexing of journal articles and the preparation of subject bibliographies. Suggestions for strengthening the collection came next in the average ranking order, followed by computer database searching and reader education. Then came inter-library loan. Photocopying and a quiet place to work were the services which came lowest in the ranking order, and were not considered to be useful.

The majority of services, however, were seen as useful. The librarian has clearly established a high profile among staff members for the provision of information, even though as discussed earlier, (in Section 7.6) she does not undertake all research work, but provides advice in a consultant capacity.

19.10 AREAS OF DIFFICULTY IN INFORMATION SEARCHING

Respondents were asked if they had difficulty in getting information in any particular subject areas. Twenty people replied that they did not have any difficulty, while three people cited six examples between them. They were "overseas journals", "banking law", "sale of goods law", less well known areas of law, very old case law and some specialist textbooks.
Respondents were asked if they were disappointed in any way with library and information services. Twenty-one people said that they were not disappointed, and made comments such as "I think the present service is excellent" and "Our library is a success story due almost completely to the librarian."

The three people who said that they were disappointed in some way with library services, said that they were disappointed in the collection of Australian material (two people) and that the library was too small and did not always provide a quiet place to work. One person commented that while s/he was not disappointed in any way with services, s/he "would like to see computerisation to assist with an even better cross-reference service."

Librarian D will no doubt take action to provide more Australian material if she feels its purchase is warranted. As only one person commented that the library did not provide a quiet place to work, and as provision of such a service was not seen as useful in the ranking of services, there is no justification for action in this case. Clearly, the establishment of the post of librarian is seen to have been a positive move by all staff.

19.11 SECURITY OF TENURE

All 23 respondents believed that the library was established and thriving. One person qualified his/her answer by saying that there was "room for improvement", but two people were very complimentary. "Our present librarian has done such a fine job that her position is now essential", said one, and the other said the library was "thriving and will develop further.... [with] a medium term need to expand our Library staff due to demand." Twenty-one people were certain that if Librarian D left the firm she would be replaced by another professional librarian.
19.12 RESPONSIBILITY FOR INFORMATION PROVISION

The last survey question asked respondents to indicate whom they thought should be responsible for keeping staff informed about developments in their area. Fifteen people believed that it was a general responsibility to be shared by all staff, four people thought that it was the librarian's responsibility, and two people thought it was the personal responsibility of the firm's partners.

Two people suggested variations. One said that it was "the Librarian's prime responsibility supplemented by contributions from other staff", and another said that s/he believed it to be the shared responsibility of librarian and staff. S/he went on, "I should make it my business to ensure that the Librarian knows the areas of law I wish to be kept abreast of. The Librarian in turn should institute a procedure to ensure that this happens."

In this law firm, perhaps more than in the previous three, there seemed to be an awareness of information co-operation that pointed to quality training of staff in information and reference searching. Librarian D was probably responsible for this attitude, and her position was seen as an essential element in the development and use of the firm's information resources.

19.13 QUESTIONS FOR THE LIBRARIAN

The Librarian of Firm D, one of the larger Wellington law firms, holds a Bachelor of Arts degree and a Diploma of the New Zealand Library School. She had worked in the field of librarianship for eight years, and had been in her present position for two years at the time of the survey. She was the first professional librarian to be appointed to the firm, and worked for 25 hours per week.
19.14 PROVISION OF SERVICES

Librarian D is offering all but one of the full range of services listed in Question 11 (See Appendix J). The one service she does not undertake is the circulation of journals. Instead she provides a current awareness service.

Before the appointment of a librarian, only four services were available. Publications were bought, journals were circulated, staff borrowed publications on a self-service basis and a quiet place to work was provided.

19.15 BUDGET AND STATISTICS

The budget of Library D was $30,000 in 1984, and is expected to increase to $48,000 for 1985.

Librarian D had not kept statistics for the 1984 year. She could report only that 11 Library Bulletins had been issued, and four interloans had been requested.

This seemed a surprising omission in a well-run library, as statistics are one method of quantifying use of the library, and measuring its growth. When, however, working hours are limited to 25 per week, a librarian will prioritise services. It would seem in this case that Librarian D did not see a need to keep statistics to justify her position - and this has already been verified by the comments made by staff.
SECURITY OF TENURE AND FUTURE PLANS

The librarian reported that before her appointment the library was housed in a separate room, but was unstaffed. She said that she felt the library was now well established, and she was sure that she would be replaced by another professional librarian if she left.

Librarian D said that she did have some problems in running the library. The lack of any clerical assistance "means that my time is often spent doing boring work, e.g. photocopying." She reported that if she was doing a lot of reference and research work, the "housekeeping" tasks accumulated.

Librarian D said that she thought that the library had "become an important part of the firm for a number of people. Much of its development has occurred thanks to the keen commitment to it ... of one or two partners. It has been vital to have an active Library Committee who will push for library growth and expenditure. On the other hand, there are a few partners, who I suspect, don't see much point to it all, and who get alarmed by growing library expenditure. This is true of some practitioners who don't see their work as involving use of the library, e.g. conveyancers."

These realistic comments indicated that Librarian D had put a lot of effort into marketing services and establishing a firm base for the library. It was obvious, both from the compliments given by staff, and in an expected budget increase of 60 percent, that she had achieved her aim. She was still aware that more could be done to gain support, and conveyancers may be the next target for her marketing strategies. They will presumably be newer members of the firm, as the conveyancers in this survey all used library services.
When she returned her questionnaire, Librarian D enclosed a copy of another questionnaire which she had circulated prior to the stopping of journal circulation in early February 1984. The questionnaire's main aim was to build up a personal profile of each staff member and his/her interests and clients, so that an effective current awareness service could be established. In addition, Librarian D asked for suggestions of titles to build the collection, while her last question was:

"Are there any changes or developments you would like to see in the Library and its services to make it better able to meet your information requirements?"

Whatever the answers were to this question, it would seem that the librarian had tailored her services to meet the required needs. This would be essential in a working week of only 25 hours. It is no mean achievement that within two years, library and information services have become an integral part of this firm.
Chapter 20

QUESTIONNAIRE RESULTS - FIRM E

20.1 QUESTIONS FOR PROFESSIONAL STAFF

Firm E is a firm of consulting engineers and architects with a total staff of 49 people. Only one staff member, the librarian, works part-time. There are nine partners in the Wellington office. The professional librarian was appointed early in 1982, after a consultant librarian's report had recommended this appointment to the firm. At the time of the survey, the librarian had been in the firm for three and a half years.

20.2 THE RESPONDENTS

Twenty-five people in the firm met the criteria for answering the questionnaire - that is, they were professional staff working for the firm before the appointment of a professional librarian, and were still employed there. Two people said that they could not find the time to fill in the questionnaire, and one person said that he found only half the questions relevant to his use of the library, so he threw it out. Twenty-two questionnaires then, were returned from the 25 distributed, giving an 88 percent response rate.

Six of the respondents to the questionnaire were partners, nine others were engineers (electrical, civil, structural and chemical), one was an operations manager, and six were draughtsmen and women.
There were at least two respondents in every age group between 26 and 60, except for the 46-50 group where there was only one.

All respondents had been in the firm for a minimum of three and a half years, and two people had worked there for 29 and 34 years respectively.

The total experience of the respondents in their various work fields ranged widely from 4 years to 43 years. Ten people had had 20 or more years experience.

20.3 THE 'BEFORE' SCENARIO

The Librarian of Firm E reported that before her appointment the firm had much of its material scattered throughout the office, as well as two specific collections - one of engineering publications (kept in a storeroom) and the other of trade literature. The existence of these two collections may explain why 17 respondents said that in the pre-establishment period of the library there was a library that was not staffed. Four people said that there were masses of material scattered throughout the office, and one person thought that the library truly started from "scratch."

20.4 APPOINTMENT OF A LIBRARIAN

Eighteen people thought that the organisation's primary reason for starting a library and employing a professional librarian was recognition of the need to organise information resources. Four people thought that the library had been started because of the need for an information service. However, when asked to identify the reasons that were influential in the firm's decision to start a library, 14 people said that one of the reasons was because of a need for more comprehensive information to assist decision-making. Fourteen people
also said that another of the reasons was because the amount of information held had expanded rapidly, and eight that technological innovations in the information field called for in-house expertise. One person thought another influential reason in the starting of the library was because funds were available, while yet another thought that access to inter-library loan was needed. Another reason given was "to reduce the lag time required to get information." A senior staff engineer summarised the position by saying, "Our information required proper management for storage and retrieval, and this management was only available from having an expert librarian on staff."

No-one, not even the two partners who were involved, mentioned that in 1981 the firm had commissioned a consultant librarian to report on the development of an organised information centre, and to recommend whether a professional librarian should be employed. This report was commissioned because the firm had been unsuccessful when tendering for certain contracts, and it had become clear that its information in some technological areas was neither as correct nor as current as it should have been. The recommendations of the consultant's report were accepted by the firm, but rather than advertise, the consultant was asked to try and find a qualified librarian who had previously worked in a similar office. Librarian E returned from England late in 1981, where she had worked as a librarian for a firm of architects and engineers. She was recommended to Firm E, and appointed to the post of librarian early in 1982.

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*Name of firm omitted to retain confidentiality.
20.5 THE VALUE OF INFORMATION

Twenty-one people found the library/information collection essential, and one found it very useful. Fifteen people said that they needed ready access to information several times a day, while five needed such access once a day. Two people needed information only twice a week.

20.6 INFORMATION SEEKING PATTERNS

While some of the partners of this firm did some of their own searching to find information, most of them along with the more senior staff, delegated their information searching to either the librarian or another, more junior member of staff. As a result, four draughtsmen/women used the library several times a day, although one of the partners also did. Ten others would go to the library once each day, and six, once a week.

When asked where they go first when seeking information, 17 people said that they would go to the firm's librarian. One person would go to someone in a profession similar to his/her own, while one person would go to a partner or other staff member. Two people would go to the firm's library, but not necessarily the librarian. One person clearly does not see the librarian as the starting point for answering information needs. S/he said, "I would initially pick what I thought would be the most productive source (which could be any of those listed including personal acquaintances) and start from there. I have on occasions, once I've exhausted my sources, asked the firm's librarian."

Staff claimed to use many outside sources of information. Fifteen people contacted the Standards Association, and nine often used government departments. Eight people each said that they had used the local City Council and the local public library. Six people had used SATIS, product
suppliers, and contacted University personnel in their quests for information. Others would consult someone in a similar profession or in a technical institute. One person each had contacted the National Library and the Building Research Association of New Zealand (BRANZ).

It seems surprising that when more than two-thirds of respondents claim to go first to the librarian when they are seeking information, so many outside sources are still being used. This suggests that the 29 hours per week worked by the librarian are insufficient for all the staff information needs. The Standards Association, government departments and the local City Council would be traditional sources of information for staff, and it is likely that given a specific question they would go direct to a known person outside the firm, rather than to the librarian.

20.7 VALUE OF PROFESSIONAL STAFF
Most respondents had noticed three or more improvements since the firm had employed a professional librarian. Twenty-one of the 22 had noticed a reduction in the time that they personally spent in seeking information, and one added that this had been the most important effect of employing a librarian. Most people found that they had generally easier access to information, as well as access to information sources that were previously either not known or not accessible. Half the respondents were more confident that the information being provided for them was correct, current and comprehensive, while five people had noticed that the duplication of research was being eliminated.
20.8 TIME AND/OR MONEY SAVINGS

Respondents were asked to give an example from their work of a time when by use of the librarian's services, they were able to save time and/or money. Only three people were not able to give examples. The other 19 respondents gave 24 examples of reference and inter-library loan requests which had all saved them considerable amounts of time. The librarian had supplied information on a variety of topics including the sick building syndrome, historical works of art and architecture in several overseas countries, deer farming, the Wairoa River irrigation scheme, methods of effluent treatment for fish processing plants, and the recovery of methanol from vapour streams. The librarian had also supplied information on foldaway basketball hoops and backing boards, on glass reinforced concrete, on floating tyre breakwaters, floating marinas, harbour facilities and naval architecture, as well as "design criteria for an unusual large structure."

Three people commented that the librarian had been able to obtain copies of overseas standards not held in the firm's library, and another commented that she was able to get BRANZ publications on loan. The librarian had also obtained data "on processes or products for which there is no known supplier or agent in New Zealand," and "detailed information about other countries" prior to partners visiting them. Four people commented on the organisation of the trade catalogues which saved them time daily because of the "immediate access to product information" provided by the system. Another person said that the librarian had assembled and organised the firm's extensive range of brochures and advertising information which enabled capability statements on the firm to be compiled efficiently.
One person gave an example of monetary savings made by the firm through the use of information provided by the librarian. S/he said: "The librarian was able, by swift response to an enquiry for information on glass types and properties, to provide information on a range of choices, which in turn had impact on the design work load, and thus production costs, involved in associated elements of a building design."

**20.9 RANKING LIBRARY SERVICES**

The two most useful services provided by the librarian were identified by respondents as the physical control of the collection so that all items held could be located, and information and reference services. The next most useful service was identified as being the provision of a catalogue. Then followed equally the control of publication ordering routines, access to inter-library loan, and reader education. Next in the average ranking order was the preparation and distribution of lists of new books and journal articles, followed by journal circulation. Further down again came suggestions for strengthening the collection which was followed by photocopying. Computer database searching and the preparation of subject bibliographies followed together equally, and then came indexing. The service which came lowest in the ranking order, and was not seen as useful was a quiet place to work.

While most people found the majority of services useful, the librarian should note that both indexing and computer database searching need more promotion within the firm. As mentioned in the first survey of this thesis (see Section 1.2 of Chapter 1) firms of consulting engineers are often working at the forefront of new technology, changing ideas from the laboratory into practical reality. For this reason, computer database searching for this firm would seem to be a necessity -
particularly as it was recognition of the firm's lack of technological expertise in some areas that lead to the appointment of the librarian.

20.10 AREAS OF DIFFICULTY IN INFORMATION SEARCHING

Respondents were asked if they had difficulty in getting information in any particular subject areas. Fifteen people said that they did not have any difficulty at all, while four people said that they had occasional difficulty with a particular subject. Examples given were recent high level technical developments, esoteric information, and some architectural product information, where the product is manufactured in a centre out of Wellington and the supplier has not distributed the product brochure on a national basis.

Respondents were asked if they were disappointed in any way with library and information services. Sixteen people said that they were not, and one commented that the provision of services was "increasing satisfactorily as the needs are identified."

Three people said that they were disappointed with some aspects of the service. One person said that s/he would like the card index to be improved, but did not say what was required to achieve this. Another said that s/he found difficulty in tracing publications on loan, and another said that it was sometimes hard to find articles which s/he had scanned and knew were available but could not identify precisely. The fact that someone has difficulty tracing publications out on loan is no doubt because the librarian is not working on a full-time basis, and is not always there to identify the location of individual titles, and/or to issue all loans.
The second expressed disappointment - identification of articles previously scanned - draws attention again (as in Section 20.9 of this chapter) to the need for the librarian to undertake more indexing, and to explain its purpose and practical operation to staff.

20.11 SECURITY OF TENURE

All 22 respondents thought that the library was established and thriving. Eighteen people thought that the librarian would be replaced by another professional librarian, should she leave, and two other people, in reply to the same question said "I hope so." The position of librarian seems to be well established.

20.12 RESPONSIBILITY FOR INFORMATION PROVISION

The last survey question asked respondents to indicate whom they thought should be responsible for keeping staff informed about developments in their area. Twelve people including five partners, believed that this was a general responsibility to be shared by all staff, and six people (one partner and five junior staff) thought that it was the personal responsibility of the firm's partners. Four people thought that this responsibility belonged to the librarian. One person commented that this question was "difficult to answer."

Both partners and the librarian need to undertake more educative staff training in this matter, so that all members of the firm understand the principle of collective responsibility for information. One of the by-products of such an effort would surely be better teamwork, as well as better information resources.
20.13 QUESTIONS FOR THE LIBRARIAN

The Librarian of Firm E, a firm of consulting engineers and architects, has qualified in librarianship through the completion of the New Zealand Library Association Certificate. She has worked in the field of librarianship for 16 years, and at the time of the survey had been with Firm E for three and a half years. She was the first professional librarian to be appointed to the firm, and works for 29 hours per week.

20.14 PROVISION OF SERVICES

Librarian E is offering the full range of services listed in Question 11 (See Appendix J) but she noted that some of the services were limited. She undertakes only limited indexing of journal articles, and does not offer a fully comprehensive current awareness service. She circulates only a few journals, but has a display area for all new publications. She does not undertake computer database searching herself, but arranges for such searches, when necessary, to be done either through the Department of Scientific and Industrial Research (DSIR) Library, or SATIS. Additional services which this librarian provides are the maintenance of both the photograph and archives collections of the firm, an index to and up-dating service for trade literature, and production of an office brochure and a monthly 'in-house' newsletter.

Before the appointment of a librarian four of the present library services were available. Publications were bought through the Office Manager, and journals were circulated. The firm was a member of SATIS, and through its services had access to inter-library loan and computer database searching.
20.15 BUDGET AND STATISTICS

The budget of Library E in 1984 was $9410, but in addition the firm paid membership subscriptions to various Institutes and Associations, in order to obtain 31 of the 46 journal subscriptions it holds. Thus the full library budget when such membership subscriptions are included was $22,460. The 1985/86 library budget was $13,500, but with membership subscriptions included would total more than $27,500.

Statistics kept by the librarian for the 1984 year were limited. They showed that she had requested 264 inter-library loans, produced 11 Library Bulletins and provided photocopies of 860 articles.

The statistics show that this is a very busy library. It would, however, be of interest to know how many reference questions the librarian answered, how many publications were catalogued, and how many trade-literature catalogues and up-datings were added to stock. From such statistics as there are, and from examples of the very wide range of reference requests answered, it would seem that total statistics could be very high when compared to other sole-charge, part-time librarians.

The high number of loans requested from other libraries (264) suggests that this library should be spending more on augmenting its stock. While the picture is very incomplete, more general reference books and bibliographical aids would seem to be needed.
20.16 SECURITY OF TENURE AND FUTURE PLANS

The librarian of Firm E reported that before her appointment the firm had much of its material scattered throughout the office, as well as two specific collections - one of trade literature and the other of engineering publications which were kept in a storeroom. She believed the library to be "well established and recognised by staff" but there was still room for improvement in attitude towards library practices. She was certain that she would be replaced by a professional librarian, if she left the job.

Librarian E said that she had a few problems in running the library, the main one being lack of support in the way of feedback. She said that in general, staff showed a lack of interest in any new system or service that was introduced unless an individual was in direct need of it. There had, for example, been only limited enthusiasm for "interest lists" on a variety of topics which she had produced. Because her position was part-time, she was not always there when staff wanted to borrow a publication, and although clear and simple instructions were prominently displayed, staff did not follow them, resulting in publications being missing until returned.

Librarian E's main problem was however, that there was no central collection of material, and publications were spread over several locations on two floors. Trade literature had to be kept near people from particular disciplines (architectural draughtsmen and structural engineers for example), while the engineering collection, journal display racks, photographs and archives were each in different locations. Although the firm is to move to new premises within a year, the librarian said that similar difficulties will exist, because the library will still not be centralised.
However, Librarian E recognises that in spite of these drawbacks, her job has many advantages. She believes that there is support for most of the services she provides, although it is not often publicly stated. The library, and her role as librarian are now taken seriously, and although her services are used more by the younger members of the staff, she thinks that "probably all have asked for help at some time or other." She saw the request to produce the "in-house" newsletter as a compliment. She reported that she had always been given the budget she required, and new shelving and other library equipment had been provided without question.

On a personal basis she appreciated the firm's flexibility in allowing her to work hours to suit herself.

This library and the librarian seem to be well established in the firm. More marketing of library services would seem to be needed to encourage feedback from staff, and attain centralisation of the majority of the collection. As shown by earlier case studies, and as is evident here, librarians tend to give priority to information and reference services, and lacking full-time working hours and/or clerical assistance, the administration and marketing tasks are neglected. Given more attention, marketing would of course, create more information and reference work, needing more time. In this situation, the librarian can not win, and each must work out an individual solution.
Chapter 21
QUESTIONNAIRE RESULTS - FIRM F

21.1 QUESTIONS FOR PROFESSIONAL STAFF
Firm F is a firm of merchant bankers with a total staff of 74 in the Wellington office, all of whom work full-time. The present librarian had been employed by the firm for 15 months at the time of the survey, and she was the second to be employed. The firm first employed a professional librarian some three years previously in February 1982, after a recommendation that they do so had been made by a consultant librarian.

21.2 THE RESPONDENTS
Seventeen people in the firm met the criteria for answering the questionnaire - that is, they were professional staff working for the firm before the appointment of a professional librarian, and were still employed there. One person refused to answer the questions, and another did not complete the questionnaire although given several reminders. One questionnaire apparently went missing in the firm's internal delivery system. The 14 questionnaires returned constituted an 82.3 percent response rate.

Eight of the respondents were in management positions, one was a supervisor, four were investment clerks, and one was a personal assistant. The two youngest respondents were aged between 21 and 25, with 11 aged between 31 and 50. The oldest respondent was in the 51-55 age-group. All survey respondents had worked for the firm for at least
three years, and three people had served for 25 or 26 years. The total experience of respondents in their respective professional fields ranged from seven to 32 years.

21.3 THE 'BEFORE' SCENARIO

Having read the consultant librarian's report the librarian of Firm F was aware that before the appointment of her predecessor, masses of material had been scattered throughout various offices, and that the main collection of journals had been housed in a cupboard in a corridor. Only four respondents agreed that this was the case. Ten said that the library truly started from "scratch", indicating that staff were genuinely unaware of any information resources being available.

21.4 APPOINTMENT OF A LIBRARIAN

Nine people thought that the organisation's primary expressed reason for starting a library and appointing a professional librarian was recognition of the need to organise information resources. Five people thought that it was because an information service was needed.

Nine of the respondents to the questionnaire thought that one of the reasons that was influential in the firm's decision to start a library was because of a need for more comprehensive information to assist decision-making. Five thought that technological innovations in the information field called for in-house expertise, while four people believed that the amount of information held had expanded rapidly. One person thought that an influential reason in starting the library was because funds were available.

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* Name of firm omitted to retain confidentiality
There was no mention of a "trigger" event that started the movement that led to the appointment of a librarian. Yet, there was one. Several members of the management staff had discussed their dissatisfaction with journal circulation and filing. In particular they wanted to be able to have some indexing system for articles of interest. One of the parties to the discussion mentioned this problem to the members of his car-pool as they drove home from work. Another member of the car-pool spoke of the work done by a consultant librarian who had organised an indexing system for his company. The end result was that Firm F employed the consultant to undertake a comprehensive review of the company's information requirements, and the consultant's recommendation to appoint a professional librarian was accepted.

21.5 THE VALUE OF INFORMATION
Six people found the library/information collection essential, another six found it very useful, and two judged it useful. Three people said that they need ready access to information several times a day, and another three said that they needed such access once a day. Two needed ready access to information twice a week, and two people once a fortnight. Two people said that they needed access only occasionally, while one respondent said that his need "varied enormously."

21.6 INFORMATION SEEKING PATTERNS
Only one respondent, a senior manager, always gets the librarian to do his research for information. Eleven others, including the remaining seven managers, sometimes get the librarian to do their research, and four of the managers will sometimes ask other staff to do it for them. Ten respondents claimed to often do their own research.
When asked where they go first when seeking information, 12 people said that they go to the firm's librarian. Two of the 12 have no other information sources. One person would go first to a consultant in private practice, while another would go to "someone within the organisation, not necessarily the Librarian." Here again, we have examples of the traditional personal information source being used, which suggests that the librarian needs to keep marketing her services, although the library has been established for three years.

The main sources of information outside the firm are others in a similar profession, government departments, the local public library and suppliers. One person would go to the Accountants' Society Library.

21.7 VALUE OF PROFESSIONAL STAFF

All respondents to the questionnaire had noticed improvements since the firm employed a professional librarian. Eleven people had noticed both that there had been a reduction in the time they personally spent searching for information, and that they had access to information sources that were previously not known or not accessible to them. Ten people said that they had generally easier access to information wherever it was held, and that they had more confidence that the information being provided for them was correct, current and comprehensive. Two people had noticed elimination of the duplication of research.
21.8 TIME AND/OR MONEY SAVINGS

Respondents were asked to give an example from their work of a time when by use of the librarian's services, they were able to save time and/or money. Only one person gave an example of specific monetary savings. The librarian had suggested the use of street guides to locate current addresses for clients, which had saved the expense of making numerous toll calls.

Four people gave examples of reference/information work performed by the librarian which had saved them time because they did not have to research for themselves. Subjects mentioned included research into a particular type of market, into the law and practice of accounting, investment in New Zealand for an overseas banker, and the setting up of a new Division for the company. Another person said that the librarian constantly saved him time by bringing to his attention "articles relevant to my job and areas of interest."

Respondents in this firm were less enthusiastic in their answers to this question than those from the previous five. There was no apparent reason, other than that only two of the staff have academic qualifications gained since they left school. This suggests that they may not be familiar with libraries and library services. Alternatively, it may be that fewer people control the decision-making in this firm, so that the need for information is not as widespread as in the other firms surveyed.
21.9 RANKING LIBRARY SERVICE

Respondents were asked to identify the most useful services for them that were offered by the librarian. The two most useful services identified were information and reference services and the preparation and distribution of lists of new books and journals. The next most useful service was identified as physical control of the collection so that any item held could be located, and this was followed equally by journal circulation and the indexing of journal articles. Next in the average ranking order were cataloguing and the control of publications ordering routines. Five services then followed with equal ranking. They were a quiet place to work, suggestions for strengthening the collection, inter-library loan, the preparation of subject bibliographies and computer database searching. Reader education followed, and the service which came lowest in the ranking was photocopying.

All the services offered were seen by most staff as useful. It was also of interest that although staff could recall few examples of reference work in the previous question, information and reference services were ranked first equal in the services provided.

21.10 AREAS OF DIFFICULTY IN INFORMATION SEARCHING

Respondents were asked if they had difficulty in getting information in any particular subject areas. Thirteen people said that they did not have any difficulty and were not disappointed in any way with library and information services.
21.11 SECURITY OF TENURE

Seven people believed that the library was well established and thriving. One person thought that it was not yet thriving, one person considered it "shaky", and four people said that they considered that it was established but still developing. One person replied that s/he thought that "more effort is needed to broaden the base of staff utilising its resources." Ten people were sure that if the librarian left she would be replaced by a professional librarian and two people "hoped so." Firm F's staff seemed to be very realistic in their assessment of the library, and the librarian. To have developed from masses of publications scattered all over the building to a library staffed by one person within three years is cause for pride. To have staff recognise that both bookstock and services are capable of further development suggests understanding and support for the librarian in her 'one-man-band' role.

21.12 RESPONSIBILITY FOR INFORMATION PROVISION

The last survey question asked respondents to indicate whom they thought should be responsible for keeping staff informed about developments in their area. Seven people, five of them managers, thought that this responsibility should be undertaken by the firm's managers, while six people, including three managers, thought that it was a general responsibility to be shared by all staff. One person thought that this was the librarian's responsibility. Like Firm E, it appeared that staff in this firm did not have an understanding of collective responsibility for information gathering. Given the lack of higher education in the firm, one can understand that this could be so, and yet the competitive nature of merchant banking suggests that this firm's need for correct, current and comprehensive information sources could be vital to its
success. Although it was the first merchant bank in New Zealand to establish the position of librarian, Librarian F should keep educating her clients to assist the firm to keep its competitive edge.

21.13 QUESTIONS FOR THE LIBRARIAN

The librarian of Firm F, a firm of merchant bankers, has a Bachelor of Arts degree and a Diploma in Librarianship. She has worked in the field of librarianship for three years, and at the time of the survey had been employed by Firm F for 15 months. A professional librarian had first been appointed to the firm in February 1982, but had left after two years in the job. The position was full-time and had been so since establishment.

21.14 PROVISION OF SERVICES

Librarian F is offering the full range of services listed in Question 11 (see Appendix J). However, she commented that she circulated journals "as little as possible", relying instead on the selective dissemination of information and the content of Library Bulletins. Librarian F reported that she tries to "tailor" any services around the users. Although all services were offered, not all users required each one. The only services that were available before the appointment of a professional librarian were the acquisition of publications, and journal circulation, both of which were organised by the General Manager's secretary.
Librarian F alone of all the firms surveyed, does not have a budget. She explained her firm's position by saying that the management staff expected their librarian to have sufficient professional judgment to decide which publications to buy, and in this area they did not want to be prejudiced by the artificial restraints of a budget.

Statistics kept by the librarian for 1984 show that 227 publications were borrowed on interloan. Thirty-eight Library Information Bulletins were issued, with the number of requests resulting from the Bulletin's publication being 1291.

Two points of concern arose here. First of all, however little or however much is involved, every library manager should have some idea of library expenditure. If the librarian does not know how much library expenditure is expanding or contracting, s/he is not in full control, with facts and figures at hand to justify spending. Librarians should arrange for the Accounts Section to send them details of expenditure, at least quarterly, as a minimum practice.

The second point of concern (as with Firm E) is that the high number of inter-library loans indicated that Librarian F should be spending more on augmenting her bookstock in an effort to reduce interloans. To spend some time establishing the gaps in the collection would be worthwhile, especially when it seems that they can be filled without budget restrictions.
21.16 SECURITY OF TENURE AND FUTURE PLANS

Librarian F believed that her library was established, and that if she left her place would be taken by another professional librarian. This had already happened with her appointment.

She had no real problems in running the library. She commented that some of the management staff were people without formal post-school qualifications, or else people whose qualifications were obtained without the need for and therefore use of a library. "This means they do not have a concept of what a Librarian can do for them," she said. This had to be taken into account as she made continual efforts to integrate the library into the organisation. She said however, that "new staff tend to have more qualifications and are aware of what a library can offer, so that they are more demanding of library services."
Chapter 22

RESULTS AND ANALYSIS: QUESTIONS FOR PROFESSIONAL STAFF

22.1 QUESTION 1 - THE 'BEFORE' SCENARIO

The first question of the questionnaire was designed to find out why the library was started, and what type of information collection existed before the appointment of a professional librarian.

The majority of respondents, 80 percent, believed that there had been a library that was not staffed in their organisation before the appointment of a professional librarian. Only 10.5 percent believed that the library had started from "scratch", while 9.5 percent thought that there had been masses of material scattered throughout the office. The librarian of each library was also asked this question to check the validity of the answers given.

In the four legal firms, all but two of the respondents reported that there was a library in a separate room for the use of staff. The other two, probably correctly, reported that masses of material was scattered throughout the office, showing an understanding that although there may have been a library, not all useful material was kept there.

In the consulting engineers' and architects' firm (hereafter called simply consulting engineers) several departmental collections had led staff to believe that there was a library, when there was not, so that only four of the 22 respondents knew that there were many collections of publications throughout the office.

In the merchant bank, 10 of the 14 respondents believed that the library had started from "scratch", when there were many publications and cupboards full of journals scattered throughout the office.

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The common factor for the six firms was that whether there was a separate library or not, much useful material was probably kept in individual offices, in cupboards, in filing cabinets and/or in desk drawers. Access to the material would be limited to the few people who knew it had been bought, leading to a situation where staff could isolate information from each other, instead of being professionally co-operative.

22.2 QUESTIONS 2 AND 3 - APPOINTMENT OF A LIBRARIAN

The primary expressed reason for starting a library was given by 74 (70.4 percent) respondents as being recognition of the need to organise information resources. A need for an information service was given by 25 (23.8 percent) while 4 (3.8 percent) specified other reasons. They included both the previous reasons, and the need to relieve pressure on the person organising the library, greater cost-efficiency for information retrieval, and provision of a better up-dating service for a legal library (See Table 33).

Sixty three (60 percent) of the respondents thought that one of the factors leading to the appointment of a qualified librarian was the need for more comprehensive information to assist decision-making. Over 55, (52.4 percent) thought that it was because the amount of information held had expanded rapidly. More than 29 (27.5 percent) thought that technological innovations in the information field called for in-house expertise. Five (4.8 percent) reported that a determining factor was because funds were available, and two (2.9 percent) reported that another factor was because access to inter-library loan was needed. The reason from five others was cost efficiency, (4.8 percent) and the need to manage resources more efficiently came from seven people (6.7 percent) (See Table 34).
### Table 33

PRIMARY EXPRESSED REASONS FOR

ESTABLISHMENT OF A SPECIAL LIBRARY

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation of materials</td>
<td>74</td>
<td>70.4</td>
</tr>
<tr>
<td>Need for an information service</td>
<td>25</td>
<td>23.8</td>
</tr>
<tr>
<td>Both the above</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Other reasons</td>
<td>4</td>
<td>3.8</td>
</tr>
<tr>
<td>No answer</td>
<td>1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Base: 105 respondents from 6 firms
Table 34

INFLUENTIAL FACTORS IN STARTING
A NEW SPECIAL LIBRARY

<table>
<thead>
<tr>
<th>Pressure Factor</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need for more information</td>
<td>63</td>
<td>60</td>
</tr>
<tr>
<td>Rapid expansion of information held</td>
<td>55</td>
<td>52.4</td>
</tr>
<tr>
<td>Technological innovations in information</td>
<td>29</td>
<td>27.5</td>
</tr>
<tr>
<td>Better management of resources</td>
<td>7</td>
<td>6.7</td>
</tr>
<tr>
<td>Availability of funds</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td>Cost-efficiency</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td>Access to inter-library loan</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>4.8</td>
</tr>
</tbody>
</table>

*The percentages total more than 100 because respondents were free to give more than one reason for the start of a new library

Base: 105 respondents from 6 firms
Table 33 shows that nearly three times as many respondents thought that the primary need to organise publications that were already held, rather than the need for an information service, was the reason for starting a library. Yet, in Table 34, the need for better management of resources as an influential factor in the library's establishment scored only 6.7 percent. This seemingly contradictory result suggests that the libraries or quasi-libraries that existed were not seen as a major resource in any of the firms. Further support for this idea is shown in Table 34 where 60 percent of respondents state that the need for more information was an influential factor. This is further borne out by over 52 percent of respondents who believed that their firm's information resources were expanding rapidly, suggesting both that organisation was needed, and that the collection needed expansion.

It was surmised that access to inter-library loan might have been an influential factor in the employment of a professional librarian, because access to the scheme requires the employment of a professional librarian in the organisation concerned for a minimum of 20 hours per week.\textsuperscript{397} As only 2.9 percent of respondents thought this could have been a factor, it seemed either that staff were accessing interloan satisfactorily through their public libraries, or were not aware that such a scheme existed. Taking the evidence given in the first survey of this thesis, it would seem that the latter was the case (see Section 12.6 of Chapter 12).

In addition to the formal answers to the questions, it has been established that all six new special libraries had the benefit of a "trigger" - described by Christianson as the factor which transforms the

\textsuperscript{397} "Professional Supervision to be Required for Interloan," \textit{Library Life} no. 38 (June 1981) : 1.
"predisposition toward a library into action." 398 At least three of the "triggers" were people who were convinced themselves of the need for expert assistance, and who pursued every opportunity that occurred to gather information, which formed the basis of reports to convince their decision-makers. Detailed accounts of these "triggers" are given in the Questionnaire Results for individual firms, but brief details are repeated here.

A partner in Firm A and a staff solicitor from Firm B both investigated the need and the benefits that could result from employment of a professional librarian, and wrote reports which convinced their management of the need to do so. In Firm F a senior manager learnt that a consultant librarian's services were available to help solve information problems, and he persuaded his colleagues to employ her to conduct an audit of information requirements, and recommend appropriate staffing.

It is probable that Firm D also had a person as a "trigger", as one respondent reported than an informal assessment of information needs was made when a move to new premises was imminent. One or more people were almost certainly behind this informal assessment - probably the partners whose keen commitment to the library was commented on by Firm D's librarian.

In Firm C the "trigger" was the rapid expansion of the firm, which resulted in recognition of the need for organised information services, guided by a professional librarian.

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398 Christianson, p. 29.
In Firm E the "trigger" motivating partners to commission a consultant librarian's report on their information needs was the need to generate business contracts in areas of new technology where correct, current and comprehensive information was a necessity.

It is of note that in three of the six firms (Firms A, E and F) a consultant librarian's advice was sought. This suggests that while business people may recognise that they have many problems related to various facets of information, they are uncertain of what professional librarians can do to help them. Contact with a consultant librarian, and a written report and job description from him or her, are ways of educating the members of a firm to understand the role of a librarian.

22.3 QUESTIONS 4 AND 5 - THE VALUE OF INFORMATION

In Question 4 respondents were asked to put a value on the library/information collection. Ninety people (85.7 percent) found their library to be essential. Twelve people (11.4 percent) found it very useful, and three people (2.9 percent) found it useful (See Table 35).

Information was needed several times a day by 69 respondents (66.3 percent), once a day by 19 (18.3 percent), twice a week by 7 (6.7 percent), and once a fortnight by 3 (3 percent). Three respondents gave the answer "occasionally" and two more said "it varies enormously". Only one person said he did not require information (See Table 36).

Only one person claimed that s/he did not use information services, but even so recognised that the library collection was, at the very least, useful. It appears that those who need information either once or several times a day, find that a library is essential.
### Table 35

**USEFULNESS OF LIBRARY**

<table>
<thead>
<tr>
<th>Description</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential</td>
<td>90</td>
<td>85.7</td>
</tr>
<tr>
<td>Very useful</td>
<td>12</td>
<td>11.4</td>
</tr>
<tr>
<td>Useful</td>
<td>3</td>
<td>3.9</td>
</tr>
<tr>
<td>Not very useful</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Not at all useful</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Base**: 105 respondents from 6 firms

### Table 36

**FREQUENCY OF ACCESS TO INFORMATION**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Several times a day</td>
<td>69</td>
<td>66.3</td>
</tr>
<tr>
<td>Once a day</td>
<td>19</td>
<td>18.3</td>
</tr>
<tr>
<td>Twice a week</td>
<td>7</td>
<td>6.7</td>
</tr>
<tr>
<td>Once a fortnight</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>5.7</td>
</tr>
</tbody>
</table>

**Base**: 104 respondents from 6 firms
22.4 QUESTIONS 6 7 8 AND 8A - INFORMATION SEEKING PATTERNS

The librarians of the firms surveyed are sometimes asked to do research by 73 respondents (69.5 percent). Seventy of the respondents often do it themselves (66.7 percent), while 63 respondents (60 percent) sometimes get someone other than the librarian to do their research. Only one person (1 percent) said that he always got the librarian to do his research (See Table 37).

Respondents were asked how often they personally made use of the library. Forty-three respondents (41.4 percent) said they used the library once a day, while 28 respondents (27 percent) said they used the library several times a day. Fourteen respondents (13.4 percent) used the library once a week, and 12 respondents (11.5 percent) used it once a fortnight. Other answers given included three times a week, occasionally, once a month, and twice a year (See Table 38).

There appears to be a natural correlation in Tables 36, 37 and 38, with 69 people claiming they need access to information several times a day; 70 claiming to do their own research; and 71 making personal use of the library either once or several times a day. However, of the 69 who use information several times a day, only two-thirds (53 respondents) do their own research, while just over two-thirds (56 respondents) use the library collection at least once or more each day.

This suggests that quite rightly, many staff have a collection of publications in their room for their particular day-to-day reference purposes, so that they do not have to spend excessive time going to the library. It also shows the pattern common in legal, consulting
Table 37
RESEARCH FOR INFORMATION

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do own research</td>
<td>70</td>
<td>66.7</td>
</tr>
<tr>
<td>Always get the librarian to do it</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sometimes get the librarian to do it</td>
<td>73</td>
<td>69.5</td>
</tr>
<tr>
<td>Always get someone else (other than the librarian) to do it</td>
<td>4</td>
<td>3.8</td>
</tr>
<tr>
<td>Sometimes get someone else (other than the librarian) to do it</td>
<td>63</td>
<td>60</td>
</tr>
</tbody>
</table>

Base: 105 respondents from 6 firms

* The percentages total more than 100 because respondents were free to give more than one answer

Table 38
PERSONAL USE OF THE LIBRARY

<table>
<thead>
<tr>
<th>Usage</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Several times a day</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>Once a day</td>
<td>43</td>
<td>41.4</td>
</tr>
<tr>
<td>Once a week</td>
<td>14</td>
<td>13.4</td>
</tr>
<tr>
<td>Once a fortnight</td>
<td>12</td>
<td>11.5</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Base: 104 respondents from 6 firms
engineering and other professional firms where partners and senior staff will delegate information searching to more junior members of the firm, which may include the librarian.

Question 8 asked respondents to specify where they go first when seeking information. Sixty-five people (63.2 percent) go to the firm's librarian. Twenty-four people (23.3 percent) go to the firm's library but not the librarian. Six people (5.8 percent) go to the library of their professional organisation, while two people (1.9 percent) go to someone in a profession similar to their own. One person (0.9 percent) goes to a consultant in private practice (See Table 39).

Having asked respondents to identify the source they would go to first when seeking information, they were then asked where else they would go. Thirty-two people (31 percent) said that they went to the firm's librarian, indicating that they would seek the librarian's help at some point in their search. When combined with the numbers of people who go to the librarian first this makes a total of 97 people (94.2 percent) who use the services offered by the librarian. Three people replied that they did not go anywhere else, other than to the librarian, and all three noted that this was because the librarian could locate whatever was wanted, and get it from wherever it was. These three people were from two firms.

Other sources of information used are listed in Table 40.

Three points for consideration emerge from the answers to Questions 8 and 8a. Although 97 people (94.2 percent) seek help from their librarian during information searches, 74 (71.7 percent) are also still seeking help from their traditional personal information sources - fellow
## Table 39
FIRST INFORMATION SOURCE

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>The firm's librarian</td>
<td>65</td>
<td>63.2</td>
</tr>
<tr>
<td>The firm's library</td>
<td>24</td>
<td>23.3</td>
</tr>
<tr>
<td>Professional organisation library</td>
<td>6</td>
<td>5.8</td>
</tr>
<tr>
<td>Someone in a similar profession</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td>A consultant in private practice</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td>103</td>
<td>100</td>
</tr>
</tbody>
</table>

Base: 103 respondents from 6 firms
<table>
<thead>
<tr>
<th>Sources of Information</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>The firm's librarian</td>
<td>32</td>
<td>31</td>
</tr>
<tr>
<td>A professional organisation's library</td>
<td>42</td>
<td>40.7</td>
</tr>
<tr>
<td>A government department</td>
<td>44</td>
<td>42.7</td>
</tr>
<tr>
<td>The City Council</td>
<td>21</td>
<td>20.3</td>
</tr>
<tr>
<td>The Standards Association</td>
<td>19</td>
<td>18.4</td>
</tr>
<tr>
<td>The National Library</td>
<td>12</td>
<td>11.6</td>
</tr>
<tr>
<td>The Scientific &amp; Technical Information Service (SATIS)</td>
<td>8</td>
<td>7.7</td>
</tr>
<tr>
<td>The local public library</td>
<td>18</td>
<td>17.4</td>
</tr>
<tr>
<td>Someone in a similar profession</td>
<td>40</td>
<td>38.8</td>
</tr>
<tr>
<td>A supplier (e.g. bookseller, manufacturer, product distributor, etc.)</td>
<td>21</td>
<td>20.3</td>
</tr>
<tr>
<td>Someone in a university</td>
<td>17</td>
<td>16.5</td>
</tr>
<tr>
<td>Someone in a technical institute</td>
<td>6</td>
<td>5.8</td>
</tr>
<tr>
<td>A consultant in private practice</td>
<td>11</td>
<td>10.6</td>
</tr>
<tr>
<td>The university law library</td>
<td>6</td>
<td>5.8</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Base: 103 respondents from 6 firms

* The percentages total more than 100 because respondents were free to give more than one answer
professionals, consultants, and acquaintances in technical institutes and universities. This suggests that the librarians need to keep marketing their services in an effort to assist the staff to obtain more correct, current and comprehensive information on which to base their decision-making.

Another point of concern is that from Tables 39 and 40 it can be seen that 48 respondents (46.5 percent) often use a professional organisation's library. This suggests that the collections of some libraries may need strengthening in particular areas, and action should be taken to ascertain the gaps, and acquire the needed resources.

The third point is that both librarians and their controlling officers need to look at the staffing of their libraries, and ask why so many staff are having to go to outside sources of information when a professional librarian is employed. The answers were suggested in the individual results for each firm, but in general terms are that in those libraries where the hours worked are part-time, arrangements for full-time equivalent hours, and/or clerical help are needed. In addition, in the two libraries where full-time hours are currently worked, the librarians need clerical assistance, so that they are able to concentrate more effectively on their true professional role.

22.5 QUESTION 9 - VALUE OF PROFESSIONAL STAFF

Respondents were asked if they had noticed improvements since a professional librarian had been appointed to the firm. Eighty-two people (78.8 percent) had noticed a reduction in the time they spent searching for information, and 78 (75 percent) had found that they had generally easier access to information wherever it might be held. Seventy-two
(69.2 percent) reported that they had access to information sources that were previously not known or not accessible, and 65 (62.5 percent) said that they had more confidence that the information being provided for them was correct, current and comprehensive. Fifteen (14.4 percent) reported elimination of the duplication of research (see Table 41).

It is significant that only one person from 105 did not reply to this question, thereby suggesting that s/he had not noticed improvements in information services since the librarian joined the staff. A check revealed that this person was a conveyancer in a law firm, and as detailed earlier, those who specialise solely in conveyancing have few library needs.

Almost two thirds of respondents had noticed improvements in four areas, while two improvements had been noted by three-quarters of those answering. The balance of two qualitative factors (easier access to information and more confidence in information supplied) with two quantitative factors (reduction in time spent searching, and access to new information sources) should be encouraging for the librarians concerned.

As only 14.4% of respondents had noticed the elimination of duplication of research, more work is needed in this area to gain staff confidence. This would be of lesser importance in the merchant bank, (where financial decisions are made against a changing economic background) and in the consulting engineering firm (where the files and drawing plans form the significant record of the work).
**Table 41**

**IMPROVEMENTS IN INFORMATION AFTER THE APPOINTMENT OF A PROFESSIONAL LIBRARIAN**

<table>
<thead>
<tr>
<th>Improvements</th>
<th>Number of Responses</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in time spent searching for information</td>
<td>82</td>
<td>78.8</td>
</tr>
<tr>
<td>Easier access to information wherever it is held</td>
<td>78</td>
<td>75</td>
</tr>
<tr>
<td>Access to information sources previously not known or accessible</td>
<td>72</td>
<td>69.2</td>
</tr>
<tr>
<td>More confidence in being supplied with correct, current and comprehensive information</td>
<td>65</td>
<td>62.5</td>
</tr>
<tr>
<td>Elimination of duplication of research</td>
<td>15</td>
<td>14.4</td>
</tr>
</tbody>
</table>

Base: 104 respondents from 6 firms

* The percentages total more than 100 because respondents were free to give more than one answer
It would be of much greater importance in the law firms, where precedent and opinion files are used as the base from which advice and courses of action can be recommended to clients. Librarians should therefore, be aware that advice may be needed by other sections of their firms in indexing files, while it seems that precedent and opinion files properly belong in the library systems.

22.6 QUESTION 10 - TIME AND/OR MONEY SAVINGS

Respondents were asked to give examples from their work of a time when by using the librarian's services they were able to save time and/or money. Thirty-one (29.5 percent) of the total of 105 respondents did not answer this question, suggesting that their use of the library for other than quick reference questions was limited.

However, the remaining 74 respondents gave 76 examples of time savings and five examples of money being saved.

While three of the examples of money savings had obviously saved the firms concerned from cash outlay, (and in the case of the building design the amount saved may have been considerable - see Section 20.8 of Chapter 20) only three respondents had discerned that the effect of the librarian was to save money by saving time. One had perceived that in saving the lawyer's time the effect had been to save the client money. Indeed if lawyers or any other fee-earning professionals do not have to spend time perusing publications because their librarian is offering a Selective Dissemination of Information service, and/or they have fast access to information through efficient in-house systems established by the librarians, and/or they can obtain information efficiently from either in-house or outside sources through their librarian, then the time that the professional can spend on fee-earning work should be increased.
In addition, it has been reported earlier (Section 16.8 of Chapter 16 and Section 19.8 of Chapter 19) that two of the librarians in the survey were adding to the value of some of their research for their lawyer employers by presenting it in report form. These reports were being used as the basis for decision-making. Again, one would expect that the cost to the client of such a decision would be less than if the lawyer concerned had completed the research himself - lawyers' charge-out rates being no doubt much higher than the charge-out rates for work done by a librarian. It seems reasonable to suggest that the logical outcome of such business is client satisfaction because of the size of the bill, word of mouth recommendation, and therefore increased business. The 76 examples of time savings were nearly all based on six library services - information and reference services, inter-library loan and international interloan, cataloguing, indexing, loans control through efficient systems, and Selective Dissemination of Information.

The majority of answers to this question concentrated on giving details of particular reference queries which had been successfully answered by the firm's librarian. Comments were also made on the librarians' wide knowledge of information sources, and the brief time that it took to find answers to questions. From the answers given to this question it seemed that 70 percent of respondents were aware that a collection of publications is of limited use unless control of and dissemination of information are in expert professional hands.
22.7 QUESTION 11 - RANKING LIBRARY SERVICES

Question 11 attempted to find out which services provided by the librarians were seen as most useful. Because some respondents ignored the rating system, percentage scores were calculated from the answers, and the rankings determined from them. The services with the highest rankings were provision of a catalogue to the collection, information and references services and physical control of the collection so that any item held could be located. The services with the lowest rankings were computer database searching, provision of a quiet place to work and photocopying. The averaged rankings are shown in Table 42.

It was surprising to find that provision of a catalogue to publications ranked ahead of information and reference services. All the librarians had worked hard to develop reference services, and were obviously spending a great deal of their time on reference and research. It may be that the provision of a catalogue was seen as the most useful service because of previous frustration (before the appointment of a librarian) when staff were unable to find out whether a particular publication was held by the firm. It may also be that a catalogue was seen as important where the librarian did not work full-time, and so was not always on hand to advise on particular publications and locate them. Perhaps too, many people felt that their firm's large investment in publications was now justified because the provision of a catalogue demonstrated that the collection was organised and accessible.

The third and fourth rankings respectively of physical control of the collection and the control of publication ordering routines, also emphasise the preoccupation respondents had with the control of routines before the appointment of a librarian. Their appreciation that these previous sources of frustration were now under control is shown in the high rankings given.
The rankings indicate that two of the professional services offered by librarians need promotion. It was disappointing to find indexing and computer database searching at eighth and twelfth rankings when journal circulation, a basic clerical task, was ranked sixth. In Firm D where selective dissemination of information had largely replaced journal circulation, information and reference services ranked first, well ahead of all other services. When professional time is short, as it often is in a sole-charge library, it seems that Librarian D's example of offering professional rather than clerical services should be followed. Similarly, promotion of indexing and database searching skills, which enhance the quality of reference services, should be undertaken. It was encouraging to see that reader education ranked at number 10, indicating that staff felt confident about communicating their needs to the librarian. It was also good to see photocopying at the lowest ranking, showing that respondents believed all other services to be more important than this basic clerical routine.

In summary, the majority of respondents found that most of the services offered by the librarians were useful, indicating that while some adjustments could be made, the majority believed that the services offered were effective.
<table>
<thead>
<tr>
<th>Service</th>
<th>Rank Effectiveness</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of a catalogue</td>
<td>1</td>
<td>1.86</td>
</tr>
<tr>
<td>Information and reference services</td>
<td>2</td>
<td>1.85</td>
</tr>
<tr>
<td>Physical control of the collection</td>
<td>3</td>
<td>1.82</td>
</tr>
<tr>
<td>Control of publication ordering routines</td>
<td>4</td>
<td>1.80</td>
</tr>
<tr>
<td>Lists of new books and journal articles, etc.</td>
<td>5</td>
<td>1.79</td>
</tr>
<tr>
<td>Journal circulation</td>
<td>6</td>
<td>1.75</td>
</tr>
<tr>
<td>Suggestions for strengthening the collection</td>
<td>7</td>
<td>1.57</td>
</tr>
<tr>
<td>Indexing of journal articles</td>
<td>8</td>
<td>1.54</td>
</tr>
<tr>
<td>Inter-library loans</td>
<td>9</td>
<td>1.53</td>
</tr>
<tr>
<td>Reader education</td>
<td>10</td>
<td>1.52</td>
</tr>
<tr>
<td>Preparation of subject bibliographies</td>
<td>11</td>
<td>1.50</td>
</tr>
<tr>
<td>Computer database searching</td>
<td>12</td>
<td>1.41</td>
</tr>
<tr>
<td>Quiet place to work</td>
<td>13</td>
<td>1.39</td>
</tr>
<tr>
<td>Photocopying</td>
<td>14</td>
<td>1.32</td>
</tr>
</tbody>
</table>

Base: 105 respondents from 6 firms
Eighty-one respondents (77.1 percent) said that they did not have difficulty in getting information in any subject areas. In addition, eleven people (10.5 percent) did not reply to this question, thereby suggesting tacit approval, and giving an overall total of 92 (87.6 percent).

Thirteen respondents (12.4 percent) did have difficulty getting information in some areas. These difficulties have been detailed in the results for individual firms, and when compared, have no discernible pattern. There is also no way of knowing whether these difficulties were experienced before or after the appointment of a librarian.

Question 13 asked respondents to express their disappointments with the library, and being an open-ended question, it was hoped that they would do so honestly. Eighty-four (80 percent) said that they were not disappointed in any way with library services, and another 9 (8.5 percent) gave no answer, thereby implying tacit approval, so that in total 93 (88.5 percent) respondents expressed their approval for services.

Of the 12 people (11.4 percent) who expressed disappointment, three did so over gaps in stock. These should perhaps, have been included in answers to the previous question, but seem to have been longstanding problems, e.g. gaps in runs of journals and statutes. It is important that librarians are aware of the weaknesses of their collections and seek approval to obtain funds in an effort to eliminate them. However, the appointment of a librarian does not necessarily mean that more funds are available for library spending, and it could be that other needs have budget priority.
Two other disappointments, each mentioned by two people, concerned cataloguing and indexing, while two others were concerned with the physical location and/or quietness of the library. The other disappointments were "too much information over my desk", a need for computer retrieval, and lack of control of publications on loan.

As suggested in the individual results of the firms, all the disappointments, except for the physical problems and the gaps in bookstock, seem to be caused by the librarians in each of the libraries concerned not having enough time for both routine and development tasks after the completion of information and reference work. However, as indicated earlier in Section 22.7 of this chapter, it is important for librarians to continue to develop and enhance those services so that attainment of their personal goals is in line with staff priorities.

22.9 QUESTION 14 - SECURITY OF TENURE

Question 14 asked respondents to state whether they thought that the library was established, and whether they thought that the librarian would be replaced by another professional if she left.

Ninety-eight respondents (93.3 percent) believed that their libraries were well established. In four of the firms (Firms A, B, D and E) the positive response to this question was 100 percent. In the other two libraries where only seven (6.6 percent) people answered in the negative, reasons were given. In Firm C respondents believed that the library needed more space, a bigger collection, and database development before it could be regarded as "established." In Firm F, a need was seen for the librarian to market her services to more staff.
In view of the small numbers of negative responses, it can be stated that all six libraries were well established within their firms.

The second part of Question 14 asked respondents to indicate if they thought that the librarian would be replaced by another professionally qualified librarian if she were to leave.

All 93 (100 percent) respondents who answered this question were sure this would happen. Twelve people did not reply to this part of the question, and as there was no discernible pattern in the age groups or seniority status of this group, it can only be assumed that a greater response might have resulted if this two-part question had been asked as two separate questions.

Nevertheless, there is strong evidence that all six librarians have been accepted as professionals within their firms, and would be replaced by fellow professionals, should they leave. Indeed, this has proved to be the case, as three of the surveyed librarians have resigned from their posts since mid-1985, and all are being, or have been replaced by qualified librarians.

22.10 QUESTION 15 - RESPONSIBILITY FOR INFORMATION PROVISION

Some 57 respondents (55.3 percent) believed that all staff shared a general responsibility to keep each other informed about information and developments. Twenty-five (24.3 percent) believed that this was the personal responsibility of managers, partners and/or proprietors, while 14 (13.6 percent) believed that this was the librarian's responsibility (see Table 43).

This question was to some extent a deviation from the main purpose, but it was an attempt to find out if business people in the survey had
considered their responsibility in the field of information provision. It was of interest to discover that just over half of them understood that information had to be gathered and shared by all staff for the maximum benefit of the firm. However, if the people in this survey are representative of the business community, and they may or may not be, it would seem that the concept of shared information gathering is not yet fully accepted by the whole business community.

It has been shown in the individual survey results that the librarian has an essential role to play in educating staff members of the firm where s/he works. It is the librarian's responsibility to educate them in the development and use of the information resources available, and to implement systems to enable collective sharing of information, no matter what form it may be in. An understanding and promotion of broadly based information systems should lead to the collective collection and awareness of correct, current and comprehensive information, which is necessary for the satisfactory performance of all staff.

22.11 QUESTIONS 16 - 21 - PERSONAL INFORMATION ON RESPONDENTS

Of the 105 respondents in this survey, 58 (55.2 percent) were either partners or managers, and 47 (44.8 percent) staff. Firm F was the only organisation where none of the respondents had a university degree. Throughout the other firms, 80 people (76.1 percent) had at least one basic degree, and 21 (20 percent) had higher degrees. Only 16 people (10 of them from Firm F) had no post-school education at all.

Eighty-four respondents (80 percent), belonged to one or more professional organisations, and 10 of the 80 belonged to three or more.
### Table 43

**RESPONSIBILITY FOR KEEPING STAFF INFORMED**

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal responsibility of managers/partners/proprietors</td>
<td>25</td>
<td>24.3</td>
</tr>
<tr>
<td>General responsibility to be shared by all staff</td>
<td>57</td>
<td>55.3</td>
</tr>
<tr>
<td>Librarian's responsibility</td>
<td>14</td>
<td>13.6</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>103</td>
<td>100</td>
</tr>
</tbody>
</table>

Base: 103 respondents from 6 firms

### Table 44

**AGE GROUPS**

<table>
<thead>
<tr>
<th>Age-Group</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-25</td>
<td>7</td>
<td>6.9</td>
</tr>
<tr>
<td>26-30</td>
<td>15</td>
<td>14.7</td>
</tr>
<tr>
<td>31-35</td>
<td>25</td>
<td>24.5</td>
</tr>
<tr>
<td>36-40</td>
<td>23</td>
<td>22.5</td>
</tr>
<tr>
<td>41-45</td>
<td>14</td>
<td>13.7</td>
</tr>
<tr>
<td>46-50</td>
<td>7</td>
<td>6.9</td>
</tr>
<tr>
<td>51-55</td>
<td>7</td>
<td>6.9</td>
</tr>
<tr>
<td>56-60</td>
<td>3</td>
<td>2.9</td>
</tr>
<tr>
<td>61-65</td>
<td>1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Base: 102 respondents from 6 firms
Almost half the respondents were aged between 31 and 40, while just over three-quarters (75.4 percent) were aged in the four groups between 26 and 45 (See Table 44). Age had no significant effect on any of the answers to the questionnaire.

Many of the respondents had worked only with one firm. This was especially true in the legal firms, where staff joined the firm as solicitors, and progressed through to partner status. The average length of time that respondents had been in their firms was 9.71 years, while their average professional experience was 11.5 years.

The average survey respondent then was either a senior professional or a partner/manager of his/her firm, where s/he had been employed for nearly ten years. His/her average professional experience would total eleven and a half years, and s/he would have a university degree, and belong to at least one professional organisation.

Certainly in this survey, the views are in general those of the well-educated professional. It is in the area of the professions and the business world that the growth of new special libraries is presently occurring. A survey of new special libraries serving blue-collar workers would no doubt, have quite different results.
Chapter 23

RESULTS AND ANALYSIS: QUESTIONS FOR THE LIBRARIAN

23.1 QUESTIONS 1 - 3 - THE FIRMS

Five of the six firms in the survey were partnerships of professionals - four law firms, and a consulting engineering firm. The number of partners in these five firms varied from five to 19. The other was a merchant bank, a subsidiary of a larger organisation. The smallest of the firms employed 32 people and the largest (Firm F) 200. However, five firms basically served only staff located in Wellington, while Firm F's librarian served branches all over the country.

23.2 QUESTIONS 4 5 6 7 AND 8 - THE LIBRARIAN AND THE FIRM

Four of the librarians had a Bachelor of Arts degree, and held the post-graduate Diploma of Librarianship. One of these librarians also held a teaching diploma, and another who worked in a law firm, had passed two law papers towards a Bachelor of Laws degree. The other two librarians held either the New Zealand Library Studies Certificate or its earlier equivalent, the New Zealand Library Association Certificate.

The least experienced of the librarians had worked for three years in the library/information field, while the most experienced had been employed for 16 years. The other four had been employed for between six to eight years.

All the librarians had had experience working in libraries before accepting their positions. Four had been with their new special
libraries from the beginning; the time that each had been in the post varied from five months to three and a half years. Another librarian had been in her post for nearly two years, and had missed only the first three months of its formation. Only one was the second professional librarian to be appointed to her post. She had been in her job for just over a year, while her predecessor had run the library for two years, before leaving.

Three of the librarians worked full-time hours, and three part-time, working between 24 and 29 hours each per week.

While a sample of six libraries may be too small to be statistically significant, (and in some cases is too small a sample to provide comparative tables) it seems both from these firms and those that were eligible to participate that the growth of new special libraries in New Zealand is predominant among firms which act as consultants. It would seem that it is in this type of firm there could be employment opportunities for librarians.

Although one of the survey firms employed a librarian (practically full-time) with a total staff of 32, this is an exception to the rule. From the other firms surveyed it appears that a firm generally employs at least 50 people, before employment of a librarian is seen as necessary.

In appointing a librarian to a new special library, it seems from the survey results that it is helpful for the appointee to have had experience in library work, so that s/he can effectively manage the multifarious demands likely to occur.
Educational qualifications did not seem to make any difference to the effective and efficient management of the libraries. In only two of the firms were reservations expressed about whether the library was firmly established; and both librarians held degrees and post-graduate library diplomas. The only other obvious comparison is that two librarians who both perceived problem areas of service, had not concluded that these problems could be solved by the employment of clerical staff. One of these librarians held a degree and a post-graduate diploma, while the other was a New Zealand Library Association Certificate holder.

23.3 QUESTIONS 9 AND 10 - BUDGET
Five librarians provided budget figures for the 1984 year, although one was only a partial figure because the firm had changed its financial year for reporting. The average spending of those libraries for the year was some $31,450, and was expected to increase to some $40,800. Two legal libraries were expecting large budget increases. One was the library which had only been established for five months. It was expected that its budget would double. The other firm was expecting an increase of 60 percent, but no reason for this large increase was given.

23.4 QUESTIONS 11 AND 12 - PROVISION OF SERVICES
Four of the librarians offered all the services and facilities listed in the questionnaire (see Appendix J, question 11). One of the four was responsible for four extra services, while two offered two extra services. Only the librarian of Firm D did not offer to provide the compilation of bibliographies, and she alone did not offer computer database searching. Librarian E did not undertake computer database searching herself, but arranged for other libraries to do this for her - a practical solution. It was commendable that such a comprehensive range
of services was offered to the staff of these six firms, and says much for the energy and initiative of the librarians concerned (See Table 45).

Only two services were available in all six firms before the employment of a professional librarian—publications were bought and journals were circulated. Publications could be borrowed on a self-service basis from three collections, and two firms occasionally distributed lists of new publications to staff. Two firms offered a quiet place to work, and one firm had a catalogue of sorts to its collection. Firm E had belonged to SATIS, and so had had access to inter-library loan and computer database searching though its services (See Table 46).

It should be of concern to librarians that there are still many firms that have basic information resources but only limited access to them. Yet, unlike the surveyed firms, their staff, particularly those in consultant positions, are giving advice without the benefit of correct, current and comprehensive information provision. Their combined influence on the business and commercial world is considerable, and one wonders what new directions our economy might take if all our decision-makers could be provided with high-quality information. This survey has shown some of the benefits in some firms that result from the employment of professional librarians and it is to be hoped that other firms will follow their example.
<table>
<thead>
<tr>
<th>Services Provided</th>
<th>Firm A</th>
<th>Firm B</th>
<th>Firm C</th>
<th>Firm D</th>
<th>Firm E</th>
<th>Firm F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A quiet place to work</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>A catalogue to publications held</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lending of publications</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Indexing of journal articles</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Preparation and distribution of lists of new books, journal articles, etc.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>A current awareness service</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Recommendations to staff for specific books or journal titles to be bought</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Acquisition of publications</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Information and reference services</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Computer database searching</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Journal circulation</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Compilation of bibliographies</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Inter-library loan</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Photocopying of library publications</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Reader education</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>1, 2</td>
<td>3</td>
<td>4, 5, 6, 7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X = Service provided
1. Maintenance of confidential information files
2. Index for unreported cases in New Zealand and overseas
3. Maintenance of professional profiles on individuals
4. Maintenance of archives collection
5. Maintenance of photograph material
6. Index and up-dating of trade literature
7. Production of in-house publications

Base: 6 respondents from 6 firms
\begin{table}
<table>
<thead>
<tr>
<th>Services Provided</th>
<th>Firm A</th>
<th>Firm B</th>
<th>Firm C</th>
<th>Firm D</th>
<th>Firm E</th>
<th>Firm F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A quiet place to work</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A catalogue to publications held</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lending of publications</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indexing of journal articles</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Preparation and distribution of lists of new books, journal articles, etc.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A current awareness service</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Recommendations to staff for specific books or journal titles to be bought</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition of publications</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Information and reference services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer database searching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*X</td>
<td></td>
</tr>
<tr>
<td>Journal circulation</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>Compilation of bibliographies</td>
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<tr>
<td>Inter-library loan</td>
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<td></td>
<td></td>
<td></td>
<td>*X</td>
<td></td>
</tr>
<tr>
<td>Photocopying of library publications</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Reader education</td>
<td></td>
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<tr>
<td>Other, please specify</td>
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<tr>
<td>X = Service provided</td>
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</tr>
</tbody>
</table>

* These services were available through membership of SATIS.
23.5 QUESTION 13 - STATISTICS

It was disappointing to find that none of the librarians kept full statistical records for comparative purposes. One librarian did not keep any statistics at all (Firm C). In the other five libraries, comparisons could be made only on the numbers of inter-library loan requests, and on the number of Library Bulletins issued.

Three librarians issued weekly Library Information Bulletins, and the other two issued them monthly.

Two librarians had requested less than 30 items on interloan for the 1984 year, while two had requested 264 and 227 respectively. As discussed in the results for individual firms, a high volume of interloan requests suggests that more funding is needed to fill gaps in stock.

The collection of statistics would seem to be important in the early stages at least of new special libraries to enable growth to be quantified, and as a measure of achievement for the librarian. However, it would seem that most of the librarians in the survey felt secure in their jobs, and did not see the need for statistics to justify their positions. It was also clear that some of the librarians had insufficient time on the job, and did not view the keeping of statistics as a high priority.

This suggests that in the future if surveys of special libraries are to be attempted, advance warning must be given to those concerned, so that some representative statistics on such things as the number of reference questions answered, the number of publications catalogued, the number of publications lent and photocopies issued, etc., can be assembled.
23.6 QUESTIONS 14 - 17 - SECURITY OF TENURE AND FUTURE PLANS

Four of the six libraries had developed from unstaffed collections. One of the four had also had masses of material scattered throughout the office, as had two others. The longest established library of those in the survey had been managed by a professional librarian for only three and a half years, so that for all librarians to be offering most of the services listed in Question 11 is an outstanding achievement.

Understandably, the librarians felt confident in their positions. They believed that their libraries were properly established, and that they would be replaced by other professional librarians should they leave.

These confident assertions were correct, as established by the results of Question 14 in the Questions for Professional Staff (see Appendix H). In four firms all respondents believed that their libraries were established and the librarian would be replaced by another professional, while only seven respondents in total had some misgivings in the two remaining firms. It was of interest that neither of the two librarians concerned were aware of the particular misgivings that were expressed - more marketing of services needed by one library, and more space, a bigger collection, and database development stated as being needed by the other. This was again an example of where an anonymous questionnaire could give the librarian needed feedback to tailor her services to the users' needs.

Five of the six librarians had a common problem, although only two of the librarians concerned had recognised it. It was that more clerical help was needed to leave the librarian free to develop professional tasks. For Librarian A, having only been in her new library for five months, it was too soon to know whether such help was needed.
The only other common problem that emerged was that three librarians (from Libraries C, E, and F) saw a lack of interest in their services from some sections of the staff. This demonstrated that the librarians concerned still had to spend time marketing their services to integrate the library fully into their organisation.
Chapter 24
CONCLUSIONS

As discussed in the Introduction to this survey, Andrew Osborn pointed out in his 1960 report on the library resources of New Zealand that:

special collections must multiply over and over again before a sufficiently broad foundation will have been laid for the country's book resources in specialised areas. 399

It has been shown that growth in the numbers of special libraries was slow until the 1980's when significant numbers of new special libraries were listed in the 1984 DISLIC 400 In addition it is known that there are at least another 18 special libraries in the Wellington area alone, six of which began in 1985. At last the growth of special libraries is gaining momentum.

24.1 A PATTERN FOR THE DEVELOPMENT OF SPECIAL LIBRARIES

Kruzas identified two basic types of collection from which professional library services grow - the professional and technical collections of law firms, consultants and engineering firms, and the business records of newspaper clippings, statistics, and annual reports which are essential to the financial firm. 401

Five of the new special libraries in my survey were of the former type, and one was from the latter.

399 Osborn, p. 32.
400 P. Szentirmay and T.C. Szentirmay, DISLIC, pp. 1-71.
401 Kruzas, p. 48-64.
Kruzas also found two basic patterns common to the development of many new special libraries. The first was that libraries evolved gradually because of the needs of a group of professionals within the firm. The second was that a library was organised when a decision was made to consolidate resources in a central collection. Again, five of the new special libraries of my survey were of the former type, and one was from the latter. The five libraries that evolved gradually because of the need of a group of professionals, were also those that grew from the professional and technical collections of four legal firms and one consulting engineering firm. The necessary business records of the financial firm developed into a library when a decision was made (on consultant advice) to consolidate resources into a central collection.

Dermyer listed 11 situations noted by the Special Libraries Association, which may lead to the formation of a new special library. Four of them formed part of the pattern for some of the libraries in my survey. They were:

- publications scattered throughout the office, and location of a specific title very difficult (three libraries);
- money spent on toll calls trying to locate information (one library);
- duplication of research within the firm (five libraries);
- competitors with in-house library services (five libraries).

In addition, Dermyer suggested that it may be none of the quoted situations which brings about a decision to start a library with a professional librarian. It may simply be "the mass of information piling

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402 Ibid., p. 64.
403 Dermyer, p. 56.
up day by day and defying all attempts at organization.\footnote{404}

This was indeed part of the reason for employing a professional librarian in four of the libraries in my survey. It was this need to organise materials combined with the need for an information service, that jointly assisted the formation of all six libraries. Other factors which were important in leading to the establishment of the libraries were the amalgamation of two law firms (one firm), and a general recognition that there was a need for an information service (all firms).

24.2 THE TRIGGER

While one or even several of the above factors may be present in an organisation, a library may still not eventuate. It seems that in many cases a "trigger" is needed to transform the idea into reality. The six libraries in my survey had the benefit of a "trigger". Three of them were people who were convinced of the need for a professional librarian. The fourth was the rapid expansion of a firm, and the fifth was the planned move to new premises. The last was the need of the firm to generate business in new areas, where correct, current and comprehensive information was a necessity.

In all cases one or more people from within the firm became convinced of the need for a library with a professional librarian controlling and disseminating the information, and worked to achieve support so that their vision was realised.

\footnote{404} Ibid.
24.3 THE INFLUENCE OF A CONSULTANT

In three of the six firms of my survey a consultant librarian's advice was sought. In two cases a written report was commissioned to survey the information needs of the firm and make recommendations for development. In the other case, the consultant librarian wrote a job description, and an appropriate advertisement, and interviewed the applicants for the firm.

In all three firms, management was unsure of the abilities of librarians, and what they should expect if they employed one. This suggests that the library profession has an extensive marketing and public relations task to undertake, so that the general public becomes aware of the abilities and expertise of librarians. After all, if our well-educated lawyers and engineers are uncertain about our role, who does know what we really do?

24.4 SUMMARY OF DEVELOPMENT PATTERN

In New Zealand then, we can conclude that a new special library may develop if at least one or more of the following factors exist in an organisation:

1. a collection of material and publications exists, which may be professional, technical and/or business records;
2. a decision is made to combine all material/publications held into a central collection;
3. publications are scattered throughout the firm and location of a specific item is difficult;
4. duplication of research occurs;
5. large amounts of money are spent on toll calls trying to locate information;
6. there is no-one on the staff who can deal with the piles of information that seem to accumulate;
7. the organisation merges with another;
8. the organisation moves to new premises;
9. competitors have in-house library services;
10. the information needs of a group of professionals within the firm are recognised.

In addition there is an established need for a "trigger" - either a person or a set of circumstances which pressurise those who make the management decisions until it is decided to employ a professional librarian.

Finally, there may be a need to employ a consultant librarian to inform management staff of the capability of librarians, and to survey the information needs of the firm to establish whether the employment of a professional librarian is warranted.

24.5 TANGIBLE BENEFITS OF EMPLOYING A LIBRARIAN

My survey sought to establish the tangible benefits of having a library and employing a professional librarian, not as seen by librarians, but as seen by business people themselves. We wanted to know if the libraries and the librarians had fulfilled expectations and satisfied the needs of their clients. Did the library and/or the librarian lead to increased organisational effectiveness? Had there been any time and/or money savings? Were the services provided in one library as effective and efficient as those available in other similar libraries?

What did the users say?
Firstly some 85 percent of respondents found the library essential, and 70 percent of them used it several times each day. Almost three-quarters of those surveyed will sometimes ask the librarian to find information for them, although most of them will do some research themselves. However, it is significant that 86 percent will go with an information problem in the first instance either to the librarian or to the library.

All respondents (except one who did not answer the question concerned) had noticed improvements since a librarian had been employed. They were:

1. A reduction in the amount of time that was spent personally searching for information;
2. Generally easier access to information wherever it was held;
3. Access to sources of information that were previously not known or not available;
4. More confidence that the information being provided was correct, current and comprehensive; and
5. Elimination of the duplication of research.

Time and money savings are also tangible benefits when a librarian is employed. It was recognised by some respondents in the survey that to save time is to save money. There were numerous examples given where reference and research work done by the librarian had saved the time of busy executives. Three librarians had also saved money for their firms. It was further established that in some firms the librarian can provide added value to her work if information is presented in report form that can be readily assimilated by the decision-maker.
24.6 THE PROVISION OF SERVICES BY THE LIBRARIAN

It has been shown that employment of a librarian can be of tangible benefit to a firm. Are there specific guidelines for a librarian setting up a new special library that will assist the library to be successful?

Certainly librarians should be aware of the value placed on individual library services by their clients. My survey shows that collectively the clients of the six libraries surveyed placed highest value on six services which are listed below in descending priority order:

1. Provision of a catalogue;
2. Information and reference services;
3. Physical control of the collection so that any item can be located;
4. Control of publication ordering routines;
5. Distribution of lists of new books, journal articles of interest, etc.; and

It is therefore in the librarian's interest to establish services that are seen as necessary, and all 14 services that were listed in Question 14 of the Questions for Professional Staff (See Appendix H) were seen as useful. So that the librarian can check that his/her goals are on target with user needs, a survey is recommended.

24.7 A USER SURVEY

In his study on the closure of several corporate libraries, Matarazzo concludes that librarians must continually evaluate the services offered by their libraries in order to avoid closure.405 It follows that they must adopt strategies to assist their survival.

405 Matarazzo, p. 130.
Blagden suggests that in order to ensure that there are tangible benefits for staff "some attempt should be made to discover how beneficial the library actually is."\textsuperscript{406} This requires a user survey, and Butler and Gratch define the purpose of such a survey as:

\begin{quote}

an attempt to discover patterns of use and levels of awareness of users toward library services, to determine success or non-success of services, and to identify what adjustments are needed in service strategy.\textsuperscript{407}
\end{quote}

A question that librarians may well ask before they are convinced of the need to undertake such a survey is whether the respondents will give honest and objective feedback. The answer must be in the affirmative.

Firstly we have the example of the multi-purpose questionnaire circulated by Firm D's librarian which was not anonymous, and which asked staff to suggest changes and developments in library services that would assist in meeting their information requirements. Whatever the answers were, there is evidence that Librarian D had very successfully tailored her services to meet the needs. The librarian and the library were clearly the main information source for staff, and information and reference services were the highest ranking service. All respondents believed that the library was established and thriving, and it seemed certain that the librarian would be replaced by another professional should she leave. This is a remarkable achievement after just two years in the job, (See Sections 19.9 and 19.11 of Chapter 19) and indicates that respondents to Librarian D's questionnaire answered her questions honestly, enabling her to adjust her services to match their needs.

\textsuperscript{406} Blagden, Do We Really Need Libraries, p. 18.
\textsuperscript{407} Butler and Gratch, p. 322.
Secondly, we have the answers to this questionnaire, where the respondents were not identified to the librarian, so that answers could be truly anonymous. It was evident that many respondents had gone to considerable trouble to be objective and honest in answering the questions, even to finding fault with the wording of one or two questions. Criticisms were generally constructive, and it was not uncommon to find praise as well as criticism within one questionnaire. A further check on honesty was the similarity of answers to questions from the legal firms, particularly where firms were about the same size. The true situation was further checked by asking the librarian of each firm three of the same questions that professional staff were asked (See Questions 11, 14 and 15 of Appendix J).

Once a librarian of a new special library has made the decision to undertake a user survey, is there an established methodology that can be used? The Literature Review told us that more work remains to be done. However, informal feedback from the librarians involved in my survey suggests that they found answers to the questionnaires helpful in assessing the need to further develop their services, and whether to change emphases to meet the expressed needs.

It is suggested that the questionnaire will need minor wording changes here and there to suit individual situations, and the first three questions could be omitted. There were no objections received to the length of the questionnaire, but it is suggested that any similar survey should not contain more than 20 questions. It is helpful to have a majority of pre-coded questions both to enable ease in answering and ease of analysis of the answers. It is also necessary to have some open-ended questions to elicit any particular concerns of respondents, so that they feel free to express them. Finally, it is considered
necessary to give all prospective respondents a letter explaining the purpose of the questionnaire at the same time as it is distributed. This helps to increase the response rate.

If this methodology were to be adopted and used by the librarians of new special libraries within the first few years of the library's life, it would be possible for librarians to compare the results from their firm with those of others. This should not be threatening, but should result in increased professionalism in librarianship as a whole. It should also provide the effective and efficient librarian with evidence for management that the services provided in his/her firm are equal to, if not better than those provided in others. It may also provide evidence for management (as it did for four librarians in my survey), that more staff time is needed in the library to enable the full development of all services.

There is one other contribution that the use of this questionnaire could make towards librarianship. It could act as a consciousness raising exercise to assist all staff, whether library users or not, to be aware of all the various services that can be provided by the professional librarian. A conclusion from my survey is that there is a need to mould the opinions of librarians to accept the concept of shared information gathering. Question 15 of those for professional staff (See Appendix H) asked respondents to nominate responsibility for the provision of information. Only half understood that information has to be gathered and shared by all staff for maximum benefit to be achieved. This suggests that librarians themselves need educating in this area so that they understand that collective sharing of information is part of the network of information resources that should be available to all staff within a firm. The librarian cannot be totally responsible for keeping
staff informed of all developments of concern to staff, and must educate others to understand their collective and individual responsibilities.

24.8 MARKETING OF SERVICES

It was established in the Literature Review (see Section 14.1 of Chapter 14) that librarians of all special libraries need to market their services and sell the advantages of the library collection to management. Four of the librarians in my survey had been successful in marketing their services and had securely established their positions within their firms. The other two librarians were also secure, but some misgivings had been expressed about the available services, and the need to tell more people in the firm what the librarian could do for them. With the growth of small, special, sole-charge libraries increasing, further teaching on the marketing of library services at both library schools would seem to be indicated.

24.9 SUGGESTIONS FOR FURTHER RESEARCH AND DEVELOPMENT

Blagden suggests that the library profession requires:

a sustained attack on the problem of developing a methodology by which the performance of a library can be more effectively assessed. We need ... to make this a key priority over the next decade ... We also need to establish a performance assessment information bank so that librarians have some external source that they can tap when faced with a need for justificatory data. ...there is a continuing requirement for an organization to act as an interface between performance assessment research investigations and the practitioner. 408

There is indeed a need for more research to develop a methodology to assist in the assessment of library performance.

408 Blagden, Do We Really Need Libraries, pp. 145-146.
In particular, as my survey was limited to the Wellington area, it would be helpful to repeat this investigation in another geographic area to provide a measure against which the findings of this study could be compared. This would help to establish whether my study is truly national in character.

If we extend our thinking on Blagden's "performance assessment information bank" and the need for justification data, another area for research is quickly indicated. That is the need for a survey to be undertaken by a librarian, which would be acceptable to management, and which would indicate when another staff member is needed.

Many firms however, do not have libraries or librarians. The first survey of this thesis has shown that many people in the business world are not familiar with the services that librarians are trained to provide as a matter of course. It would therefore be of great assistance to the promotion of librarianship in the business community if the New Zealand Library Association, through the Special Libraries and Information Services Section, were to campaign to promote the librarianship cause in business and industry. Development of a consulting service within the aegis of the New Zealand Library Association could be one of the end results, and this would then provide a solution to Blagden's stated need for an "interface between performance assessment investigations and the practitioner." The promotion of librarianship should also give a vital impetus to the profession by creating jobs in a time of increasing world-wide unemployment.

409 Blagden, Do We Really Need Libraries, p. 146.
Some of these suggestions may require change - changes in our attitude, and in our opinions, and in our thinking about our profession. Chen and Hernon have pointed out that we are competing with other information providers in the "struggle for survival." They believe that:

if we are unafraid in our planning, and diligent, dedicated, and expert in our management, then we can and will change libraries for the better. The choice of if we shall (or when or how)- as well as the responsibility for its ramifications - is the property of the profession as a whole and each of us alone.

410 Chen and Hernon, p. 7.
411 Ibid., p. 126.
Estimate some value $p^\wedge = \text{proportion of sample}$. Really want $p = \text{proportion in population}$. Say sample size is $n$, and population size is $N$.

Then if this sampling procedure of selecting $n$ from $N$ were repeated a sufficient number of times, in 95 out of 100 of these repetitions, the true proportion $p$ would lie in the interval

\[
95\% \text{ CI} \quad 95\% \text{ CI}
\]

\[
\left( \frac{\hat{p} - 1.96}{\sqrt{\frac{N-n}{n}}} \right) \text{ to } \left( \frac{\hat{p} + 1.96}{\sqrt{\frac{N-n}{n}}} \right)
\]

This range is called the 95 percent confidence interval for $p^\wedge$. The term $\frac{N-n}{n} (\hat{p}(1-\hat{p}))$ is the estimated variance of the estimated proportion $p^\wedge$. These confidence bounds are calculated for any given $n$ and $N$ and for $p^\wedge = 0$ to 1 by 0.01 in the program CI95 FORTRAN in the appendix.
FORTRAN Program for Confidence Interval Calculation

APPENDIX A
ITEM 2

C THIS PROGRAM CALCULATES THE VARIANCE AND HENCE THE CONFIDENCE
C INTERVALS USING THE NORMAL APPROXIMATION, FOR A PROPORTION DETERMINED
C BY A SIMPLE RANDOM SAMPLE.
C
C INPUT DATA IS TO BE PLACED IN THE FILE 'SAMPPOP DATA A'
C IT WILL BE READ IN FREEFIELD FORMAT.
C
C NUM IS THE NUMBER OF OBSERVATIONS IN THE FILE OF VALUES OF
C NN AND N. IT IS TO BE RECORDED AS THE FIRST NUMBER IN
C THAT FILE ON A SEPARATE LINE
C
C NN = TOTAL POPULATION SIZE
C N = TOTAL SAMPLE SIZE
C
C PHAT = ESTIMATED PROPORTION
C
REAL*8 FSF,FACTR1,UCI95,LCI95,PHAT,SDP,VARP
INTEGER NN,N,NUM

READ(10,*) NUM
DO 600 I=1,NUM
   READ(10,*) NN,N
   WRITE(11,900) NN
   WRITE(11,1000) N
   WRITE(11,1100)
   FSF=(FLOAT(NN)-FLOAT(N))/FLOAT(NN)
   FACTR1=FSF/FLOAT(N)
   DO 500 PHAT=0,1.000,0.01
      VARP = FACTR1*PHAT*(1.0D+00-PHAT)
      SDP = DSQRT(VARP)
      UCI95 = PHAT+1.96*SDP
      IF (UCI95.GT.1.) UCI95=1.00
      LCI95 = PHAT-1.96*SDP
      IF (LCI95.LT.0.) LCI95=0.00
      WRITE(11,1200) PHAT,LCI95,UCI95
500 CONTINUE
600 CONTINUE
900 FORMAT(1H1///7X,18H POPULATION SIZE .I6)
1000 FORMAT(1X/7X,18H SAMPLE SIZE .I6)
1100 FORMAT (1X///5X,68H ESTIMATED POPULATION
         + ESTIMATED UPPER/10X,60H PROPORTION
         + 95% C.I.)
1200 FORMAT (1X,15X,F6.2,19X,F6.2,18X,F6.2)
STOP
END
30 July 1984

The Director of Research,
New Zealand Society of Accountants,
P. O. Box 11-342,
Wellington.

Dear Mr Westworth,

Thank you for the time you spent talking to me on the telephone recently. I confirm that I am a student at Victoria University of Wellington, undertaking research for a Master of Arts degree in Librarianship. I have been a librarian for 25 years, and since 1969 I have been in practice as a consultant. I work mainly in the business community surveying the needs of firms and assisting them to establish libraries and information systems.

This year in my study programme I plan to survey the use made of information sources, including libraries, by four occupational groups. The work is being done on a case study basis by random sample in the Wellington area only, and because accountants have special information needs, I wish to look at the ways those needs are met now, and discuss possible future sources of help. I hope to interview a random sample of accountants in public practice, both partners and staff accountants, in firms that do not employ professionally qualified librarians. The interview consists of 30 questions and should not take longer than half an hour.

I recognise that accountants are busy people, but at the moment, considerable activity is taking place, particularly in the National Library of New Zealand to plan information services for the future. I believe therefore, that it is important to find out now what needs accountants have, and what type of library and information services would help them in their decision-making. The Trustees of the National Library are supporting my research with a grant.

I should be most grateful if the editor of the Accountants Journal would include a brief note of my research in the next issue of that journal, to alert practitioners to the forthcoming survey. I undertake to send him a summary of results at the conclusion of the work.

I should be most grateful for the Society's support in principle for my research, and any assistance you can give in publicising the research will be greatly appreciated.

Yours sincerely,

(Helen M. Stephen-Smith)
30 July 1984

The Director,
Association of Consulting Engineers New Zealand,
P. O. Box 12-055,
Wellington.

Dear Mr White,

Thank you for your list of members for 1983, which you sent to me recently. As we discussed by telephone I confirm that I am a student at Victoria University of Wellington, undertaking research for a Master of Arts degree in Librarianship. I have been a librarian for 25 years, and since 1969 I have been in practice as a consultant. I work mainly in the business community surveying the needs of firms and assisting them to establish libraries and information systems.

This year in my study programme I plan to survey the use made of information sources, including libraries, by four occupational groups. The work is being done on a case study basis by random sample in the Wellington area only, and because consulting engineers have special information needs, I wish to look at the ways those needs are met now, and discuss possible future sources of help. I hope to interview a random sample of consulting engineers, in firms that do not employ professionally qualified librarians. The interview consists of 30 questions and should not take longer than half an hour.

I recognise that consulting engineers are busy people, but at the moment, considerable activity is taking place, particularly in the National Library of New Zealand to plan information services for the future. I believe therefore, that it is important to find out now what needs consulting engineers have, and what type of library and information services would help them in their decision-making. The Trustees of the National Library are supporting my research with a grant.

I should be most grateful if the editor of your Newsletter would include a brief note of my research in the next issue to alert members to the forthcoming survey. I undertake to send him a summary of results at the conclusion of the work.

I should be most grateful for the Association's support in principle for my research.

Yours sincerely,

(Helen M. Stephen-Smith)
24 July 1984

Miss Frances Parker,
Executive Director,
Wellington District Law Society,
P.O. Box 494,
Wellington.

Dear Frances,

Thank you for spending time talking to me on the telephone recently. I confirm that I am a student at Victoria University of Wellington, undertaking research for a Master of Arts degree in Librarianship. I have been a librarian for 25 years, and since 1969 I have been in practice as a consultant. I work mainly in the business community surveying the needs of firms and assisting them to establish libraries and information systems.

This year in my study programme I plan to survey the use made of information sources, including libraries, by four occupational groups. The work is being done on a case study basis by random sample in the Wellington area only, and because lawyers have special information needs, I wish to look at the ways those needs are met now, and discuss possible future sources of help. I hope to interview a random sample of lawyers, in firms that do not employ professionally qualified librarians, and ask them 30 questions. The interview should not take longer than half an hour.

I recognise that lawyers are busy people, but at the moment, considerable activity is taking place, particularly in the National Library of New Zealand, to plan information services for the future. I believe therefore, that it is important to find out now what needs lawyers have, and what type of library and information services would help them in their decision-making. The Trustees of the National Library are supporting my research with a grant.

I should be most grateful if the editor of Council Brief would include a brief note of my research in the next issue of that journal to alert practitioners to the forthcoming survey. I undertake to send him a summary of results at the conclusion of the work.

As discussed, I should also be most grateful if your would arrange for me to be supplied with a list of the names and business addresses of lawyers in private practice in the Wellington district. I undertake to pay any charges levied.

I should be most grateful for the support of the Wellington District Law Society, and assistance with the above matters will be greatly appreciated.

Yours sincerely,

(Helen M. Stephen-Smith)
30 July 1984

Mr John Ferguson,
Secretary and Registrar,
Pharmaceutical Society of New Zealand,
P. O. Box 11-640,
Wellington.

Dear John,

Thank you for the Register of Pharmacists 1983, and the addressograph lists that Ellen McCrae sent me recently. Thank you too for the time you spent with me talking on the telephone. As we discussed then, I confirm that I am a student at Victoria University of Wellington, undertaking research for a Master of Arts degree in Librarianship. I have been a librarian for 25 years, and since 1969 I have been in practice as a consultant. I work mainly in the business community surveying the needs of firms and assisting them to establish libraries and information systems.

This year in my study programme I plan to survey the use made of information sources, including libraries, by four occupational groups. The work is being done on a case study basis by random sample in the Wellington area only, and because pharmacists have special information needs, I wish to look at the ways those needs are met now, and discuss possible future sources of help. I hope to interview a random sample of pharmacists and ask them 30 questions. The interview should not take longer than half an hour.

I recognise that pharmacists are busy people, but at the moment, considerable activity is taking place, particularly in the National Library of New Zealand, to plan information services for the future. I believe therefore, that it is important to find out now what needs pharmacists have, and what type of library and information services would help them in their decision-making. The Trustees of the National Library are supporting my research with a grant.

I should be most grateful if you would ask the editor of New Zealand Pharmacy to include a brief note of my research in the next issue, to alert pharmacists to the forthcoming survey. I undertake to send him/her a summary of results at the conclusion of the work.

I am most grateful for the encouragement and assistance that staff of the Society have so far provided. Thank you for that support.

Yours sincerely,

(Helen M. Stephen-Smith)
Dear

Your Information Needs

I am a student at Victoria University of Wellington undertaking research for a Master of Arts degree in Librarianship. I am also a practising librarian. For the last ten years I have been working largely in the business community surveying the needs of individual companies and firms, and helping them to establish libraries and information systems.

This year, in my study programme I plan to look at the use made of information sources, including libraries, by four occupational groups. The work is being done on a case study basis by random sample, in the Wellington area, and because accountants have specialised information needs, and do not employ professionally qualified librarians to assist, I want to look at the way their needs are met, and discuss possible future sources of help. I am interviewing accountants in private practice, both partners and staff to get a representative sample.

I recognise that you are a busy person, but at the moment considerable activity is taking place, particularly in the National Library of New Zealand, to plan information services for the future. I believe therefore that it is important to find out now not only your needs but your ideas on the type of service that would be appropriate for you. The Trustees of the National Library are supporting my research with a grant. As far as I am aware, no similar research has been undertaken in New Zealand.

In order to provide accurate data on which the library profession can base its decisions, I would be grateful if I could come to your office, and ask you some 30 questions. Naturally your answers will be held in the strictest confidence. Mr C. Westworth, the Director of Research at the New Zealand Society of Accountants, is aware of my research, and will be bringing it to the attention of the profession in the next issue of the Accountants Journal. I hope that the results will be available for publication early next year.

I shall contact you by telephone within the next two weeks and hope that you will agree to see me.

Yours sincerely,

Helen M. Stephen-Smith
Dear 

Your Information Needs

I am a student at Victoria University of Wellington undertaking research for a Master of Arts degree in Librarianship. I am also a practising librarian. For the last ten years I have been working largely in the business community surveying the needs of individual companies and firms, and helping them to establish libraries and information systems.

This year, in my study programme I plan to look at the use made of information sources, including libraries, by four occupational groups. The work is being done on a case study basis by random sample, in the Wellington area, and because consulting engineers have specialised needs, I want to look at the way those needs are met, and discuss possible future sources of help. I am interviewing consulting engineers in firms that do not employ professionally qualified librarians.

I recognise that you are busy person, but at the moment considerable activity is taking place, particularly in the National Library of New Zealand, to plan information services for the future. I believe therefore that it is important to find out now not only your needs but your ideas on the type of service that would be appropriate for you. The Trustees of the National Library are supporting my research with a grant. As far as I am aware, no similar research has been undertaken in New Zealand.

From time to time various groups of engineers overseas have been surveyed in an attempt to discover their information needs, but consulting engineers have rarely been included. Therefore little is known about whether their needs are being adequately met, and if not, what measures might be taken to remedy the situation.

With this purpose in view, I would like to come to your office for half an hour and ask you 30 questions. Naturally your answers will be held in strictest confidence. The Director of the Association of Consulting Engineers is aware of my research, and is to alert members to the survey in the next issue of the Newsletter. I hope that the results will be available for dissemination early next year.

I shall contact you by telephone within the next two weeks and hope that you will agree to see me.

Yours sincerely,
Dear

Your Information Needs

I am a student at Victoria of Wellington undertaking research for a Master of Arts degree in Librarianship. I am also a practising librarian. For the last ten years I have been working largely in the business community surveying the needs of individual companies and firms, and helping them to establish libraries and information systems.

This year, in my study programme I plan to look at the use made of information sources, including libraries, by four occupational groups. The work is being done on a case study basis by random sample, in the Wellington area, and because lawyers have specialised needs, I want to look at the way those needs are met, and discuss possible future sources of help. I am interviewing lawyers in private practice, both partners and staff solicitors, in firms that do not employ professionally qualified librarians.

I recognise that you are a busy person, but at the moment considerable activity is taking place, particularly in the National Library of New Zealand, to plan information services for the future. I believe therefore that it is important to find out now not only your needs but your ideas on the type of service that would be appropriate for you. The Trustees of the National Library are supporting my research with a grant.

As far as I am aware, no similar research has been undertaken in New Zealand. Some other countries, notably Canada, have attempted to establish the information needs of practising lawyers to discover whether those needs are being adequately met, and if not, what measures might be taken to remedy the situation.

With this in view I would like to come to your office for half an hour and ask you 30 questions. Naturally your answers will be held in strictest confidence. I have contacted Wellington District Law Society President, Mr R.A. Heron, and have his support for my work. I hope that the results will be available for publication early next year.

I shall contact you by telephone within the next two weeks and hope that you will agree to see me.

Yours sincerely,

Helen M. Stephen-Smith
Dear

Your Information Needs

I am a student at Victoria University of Wellington undertaking research for a Master of Arts degree in Librarianship. I am also a practising librarian. For the last ten years I have been working largely in the business community surveying the needs of individual companies and firms, and helping them to establish libraries and information systems.

This year, in my study programme, I plan to look at the use made of information sources, including libraries, by four occupational groups. The work is being done on a case study basis by random sample in the Wellington area, and because pharmacists have specialised information needs, I want to look at the way those needs are met, and discuss possible future sources of help. I am interviewing pharmacists, both proprietors and staff, in business in the Wellington area, in an effort to determine typical information needs and problems, and the use made of various information sources.

I recognise that you are a busy person, but at the moment considerable activity is taking place, particularly in the National Library of New Zealand, to plan information services for the future. I believe, therefore, that it is important to find out now not only your needs, but your ideas on the type of service that would be appropriate for your profession. The Trustees of the National Library are supporting my research with a grant. As far as I am aware, no similar research has been undertaken in New Zealand.

In order to provide accurate data on which the library profession can base its decisions, I would be grateful if I could visit you at your workplace and ask you some 30 questions. Naturally your answers will be held in the strictest confidence. Mr John Ferguson, Secretary and Registrar of the Pharmaceutical Society of New Zealand is aware of my research which is to be brought to the attention of pharmacists in the next issue of New Zealand Pharmacy. I hope that the results will be available for publication early next year.

I shall contact you by telephone within the next two weeks and hope that you will agree to see me.

Yours sincerely,

Helen M. Stephen-Smith
Dear

Thank you so much for your time recently when we discussed the use you make of various types of information.

I am most grateful for your input into my survey. The results of interviews with 57 accountants, as well as comparisons with three other professional groups should be reported in Accountants Journal early next year.

Thank you again for your help.

Yours sincerely,

Helen M. Stephen-Smith
Dear Helen M. Stephen-Smith

Thank you so much for your time recently when we discussed the use you make of various types of information.

I am most grateful for your input into my survey. The results of interviews with 31 consulting engineers, as well as comparisons with three other professional groups should be reported in your Association Newsletter early next year.

Thank you again for your help.

Yours sincerely,

Helen M. Stephen-Smith
Dear

Thank you so much for your time recently when we discussed the use you make of various types of information.

I am most grateful for your input into my survey. The results of interviews with 58 lawyers, as well as comparisons with three other professional groups should be reported in Council Brief early next year.

Thank you again for your help.

Yours sincerely,

Helen M. Stephen-Smith
Dear Helen M. Stephen-Smith

Thank you so much for your time recently when we discussed the use you make of various types of information.

I am most grateful for your input into my survey. The results of interviews with 52 pharmacists, as well as comparisons with three other professional groups should be reported in *New Zealand Pharmacy* early next year.

Thank you again for your help.

Yours sincerely,

Helen M. Stephen-Smith
A SURVEY OF

THE INFORMATION NEEDS OF

FOUR PROFESSIONAL OCCUPATIONAL GROUPS
1. In your opinion is the quantity of printed material coming to your business:-
   too little
   about right
   too much
   overwhelming

2. If you find anything of interest in the printed material, do you:-
   read it and then discard it
   read it and keep it
   keep it for future reference
   circulate it to other staff
   seldom find anything of interest

3. Do you have a system for storing information, and how much information do you have in it? Is it:-
   on a file
   in a card index
   in a bookcase in your room
   in a filing cabinet for information
   in a special cupboard
   in a special room
   in the firm's library
   in someone else's room
   mental note
   other - please specify

4. In what ways does useful information come to you?
   journals/newsletters from your professional organisation
   journals that your company or organisation subscribes to
   pamphlets, brochures or circulars from trade or employers' federations
   trade magazines
   advertising brochures
   newspapers
   conversations with others in similar business
   conversations with others in similar business at seminars, meetings etc.

5. How much will your firm spend on information this year?
6. Indicate which of the following subjects you frequently need information on, and those on which you sometimes need information:

(a) **General topics**
- Professional ethics
- Financial management
- Small business
- Statistics - please specify area of need
- Overseas developments in your profession
- Government laws, statutes, regulations
- Local body by-laws, regulations, etc.
- Standards
- Managing employees
- Staff training
- Industrial awards
- Effective advertising/marketing
- Prevention of work related accidents
- Shop/Office fittings and equipment
- Shop/Office security
- Records management (files, archives) etc.
- Automation and new technology (including computers, word processors) etc.
- No advice or information needed.
- Other, please specify

(b) **Accountants only**
- Accountability of the public sector
- Auditing
- Computing systems
- Estate planning
- Export possibilities
- Financial reporting/accounting
- Inflation accounting
- Taxation reform
- Other, please specify

(c) **Consulting engineers only**
- Building research
- Chemical engineering
- Civil engineering
- Company information (capital services, personnel) etc.
- Concrete
- Export possibilities
- Fire prevention
- Job costing
- Names of businesses to which you could sell your services
- Names of product suppliers
- Pollution control
- Structural engineering
- Tenders and contracts
- Other, please specify

(d) **Lawyers only**
- Accident compensation
- Business and company law
- Commercial law
- Consumer problems
- Conveyancing
- Criminal law
- Debt
- Immigration
- Matrimonial and family
- Planning licences and tribunals
- Taxation and estate planning
- Tenancy
- Wills and estate administration
- Other, please specify
7. How often in your everyday business activities do you need ready access to information?

- several times a day
- once a day
- once a week
- once a fortnight
- other, please specify

8. Do you do your own research to find information or does someone else in the firm do it for you?

9. How long is it since you sought information or assistance outside your business?

- within the past day
- within the past week
- within the past fortnight
- within the past month
- within the past year
- not for more than a year

10. When seeking information from an outside source do you:

- write
- telephone
- make a personal visit
- other, please specify
- never seek information from an outside source
11. How do you prefer to receive information or assistance:
   - in written form
   - by telephone
   - by a visit from someone
   - by a visit to someone
   - by casual conversation
   - other, please specify

12. Last time you needed information, what were you trying to find out, and about how long did you spend looking for it?

13. How urgently did you need the information for it to be of use?
   - Immediately
   - Sometime today
   - Tomorrow
   - Within a week
   - Within a month
   - Within a longer but definite time span
   - Time not important
   - Don't know - information for someone else
   - Other, please specify

14. Did the information found meet your needs? If not, why not?
15. Is this typical of your need for information?
   If no, please elaborate.

16. How often do you find relevant information after a problem has been dealt with?
   Has that information been published recently?

17. When seeking advice on a problem, which of the following have you (or your staff) contacted?

   your own firm's library
   the library of your trade, business or professional organisation
   (e.g. Wellington District Law Society Library, the Accountants' Society library, etc.)
   a government department (e.g. Trade & Industry, DSIR, Inland Revenue,
   a quango (e.g. ACC, Liquid Fuels Trust Board, etc.)
   your local Council
   the Standards Association
   the National Library
   the Scientific and Technical Information Service (SATIS)
   your local public library
   someone in a profession similar to your own
   a supplier
   someone in a university
   someone in a technical institute
   a consultant in private practice
   other, please specify
18. If you don't contact libraries for your information needs, is it for any of these reasons:—

you have all the information you need
you do not think that a library would have sufficiently practical information
You feel it would take too long to find the information you need
You get the information from other sources
In the past you could not find what you wanted/needed; you assume the same would be true this time.
Libraries do not have what you want/need
The library is inconveniently located
Library holdings are not up to date enough
It did not occur to you
Other, please specify

19. If you have sought information from a library or information centre, did you get what you were looking for?

20. Have you used the inter-library loan service? If yes, how often?

21. Have you ever commissioned an on-line computer information search? If yes, when?

22. In order to give me a better insight into your information needs would you care to give an outline of a problem or problems which remain unsolved in your business?
23. If an information centre for accountants/consulting engineers/ lawyers/pharmacists was set up, to which type of organisation or institution should it be attached to be of most use? Please give first and second choice.

A trade or professional association
A university
A public library
A technical institute
The National Library
DSIR
A new independent government-sponsored information agency
Other, please specify

24. The following list gives a number of ways by which information might be made available to you. Could you indicate which ways you would prefer. (1st, 2nd, 3rd choice etc.)

In a magazine which arrives regularly.
By a service that notifies you of printed information, likely to be of interest to you, which is available on request.
By a visit to a library where the information is available.
By a telephone call to an information centre which could give answers to some inquiries and direct you to persons who could give information on more specialised inquiries.
Other, please specify.

25. If an information centre was set up which was capable of supplying information of value, would you be prepared to pay for it:

On a fee basis each time you use it.
On a fee basis if payment was tax deductible.
By annual subscription
Not willing to pay at all. If not, why not?

26. FOR FIRMS WITH TEN OR MORE PEOPLE WORKING THERE

Do you think that employing a professional librarian or Information Officer, either full or part-time would help you in your search for information? If no, why not?
27. **BACKGROUND INFORMATION**

Is the business:

- a sole proprietorship
- a partnership
- a limited liability company
- a public company
- a subsidiary of a large company
- other, please specify

28. How many people working in the firm are partners or proprietors?

29. How many people are employed in this firm including yourself?

- Full-time
- Part-time

30. What trade or professional organisations do you belong to?

31. Could you please tell me your educational and professional qualifications?

32. Please indicate your age on the table below:

<table>
<thead>
<tr>
<th>Age Range</th>
<th>16-20</th>
<th>21-25</th>
<th>26-30</th>
<th>31-35</th>
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</tbody>
</table>
33. What position do you hold in the firm?

34. How long have you been employed in this firm?

35. What is your total experience in years in your professional field?
Dear

I am a student at Victoria University of Wellington, undertaking research for a Master of Arts degree in Librarianship. I am also a practising librarian. For the last ten years I have been working largely in the business community, surveying the needs of individual companies and firms, and helping them to establish libraries and information systems.

Last year, in my study programme I looked at the use made of information sources, including libraries, by four occupational groups - accountants, consulting engineers, lawyers and pharmacists. My survey was restricted to firms where professional librarians are not employed.

This year as a codicil to that survey, I plan to conduct another survey in six firms where professional librarians have been appointed in the last five years. I hope to try to assess what difference it has made to the work of other staff members to have a professional librarian to help them, and to provide an indication of how satisfied users are with the services provided.

As your firm has appointed a professional librarian to its staff within the last five years, I seek your permission to conduct a survey in it. The survey is in two parts. The first part consists of some 20 questions for the Librarian, and the second part has 20 questions for professional staff to answer. The questions for professional staff are restricted to those staff who were employed in the firm before the professional librarian was appointed, and who are still working with you. I hope that your Librarian can identify those staff members for me.

The questionnaires should take no more than twenty minutes to answer, and each participant will be given an envelope in which to put the completed forms, so that his/her answers will be completely confidential. Your Librarian has agreed to distribute and collect the questionnaires for me, and I shall collect the sealed results from her. After evaluation, I shall be able to give each participating Librarian and her firm a summary of results, as well as comparative results with the other firms surveyed. Naturally all answers will be held in the strictest confidence, and participating firms will not be identified by name.
I should be most grateful if you would let me know as soon as possible if I have permission to conduct this survey in your firm. If you are agreeable, I plan to distribute the questionnaires within the next two weeks, and have the survey completed by the end of June.

Yours sincerely,

Helen M. Stephen-Smith
Dear

Survey of New Special Libraries

Enclosed is a questionnaire from which I hope to assess what difference it has made to your firm to have a professional librarian on its staff. The questionnaire is also designed to indicate how satisfied users are with the library and information services provided, and identify areas of dissatisfaction.

I have received permission from your firm to conduct this survey, and your librarian is cooperating in this research. I have also been given some financial support by the Trustees of the National Library, who are interested in the information needs of professions and the business community. The results will form part of my thesis for a Master of Arts degree in Librarianship, which I am undertaking at Victoria University of Wellington.

The questionnaire should take no more than twenty minutes to answer. After completion, please put it in the attached envelope, seal, and return it to your Librarian. Your personal answers will be completely confidential, as I shall give your Librarian a summary of results only, with comparative results from the other libraries surveyed. The participating firms will not be identified.

Thank you for your cooperation in this project. I should be very grateful if you would return your answers to your Librarian within a week.

Yours sincerely,

Helen M. Stephen-Smith

Encl:
SURVEY OF NEW SPECIAL LIBRARIES

QUESTIONS FOR PROFESSIONAL STAFF

IMPORTANT

As this questionnaire will be analysed with the aid of a computer, it is important that answers are ticked according to instructions.

1. If asked to tick one answer, please do not tick more than one answer.

2. If asked to tick any answer, please tick any answers which apply to that question.
1. In the pre-establishment period of the library, was there:
   (Tick one)
   ___ a library, unstaffed
   ___ masses of material scattered throughout the office
   ___ the library truly started from "scratch"
   ___ other, please specify

2. What, in your opinion, was the organisation's primary expressed reason for starting a library?
   (Tick one)
   ___ Recognition of the need to organise information resources
   ___ Need for an information service
   ___ Other, please specify

3. Were any of the reasons given below influential in the firm's decision to start a library? (You may need to tick more than one reason)
   ___ Because funds were available
   ___ Because access to the inter-library loan service was needed
   ___ Because technological innovations in the information field called for in-house expertise
   ___ Because of a need for more comprehensive information to assist decision-making
   ___ Because the amount of information held had expanded rapidly
   ___ Other, please specify

4. Do you think the library/information collection is:
   (Tick one)
   ___ essential
   ___ very useful
   ___ useful
   ___ not very useful
   ___ not at all useful
5. How often in your everyday business activities do you need ready access to information? (e.g. from files, statutes, books, journals, or by telephone etc.)
(Tick one)

   ____ several times a day
   ____ once a day
   ____ twice a week
   ____ once a fortnight
   ____ other, please specify

6. Do you do your own research to find information, or does someone else in the firm do it for you? (You may need to tick more than one answer)

   ____ Do it yourself
   ____ Always get the Librarian to do it
   ____ Sometimes get the Librarian to do it
   ____ Always get someone else (other than the Librarian) to do it
   ____ Sometimes get someone else (other than the Librarian) to do it
   ____ Other, please specify

7. How often do you personally make use of the library?
(Tick one)

   ____ Several times a day
   ____ Once a day
   ____ Once a week
   ____ Once a fortnight
   ____ Other, please specify
8. Where do you go first when seeking information?
(Tick one)

___ the firm's librarian
___ the library of your business or professional organisation (e.g. the Wellington District Law Society Library, Accountants' Society library, etc.)
___ a government department (e.g. Trade & Industry, DSIR, Justice, Ministry of Works, etc.)
___ the local City Council
___ the Standards Association
___ the National Library
___ the Scientific and Technical Information Service (SATIS)
___ your local public library
___ someone in a profession similar to your own
___ a supplier (e.g. bookseller, manufacturer, product distributor, etc.)
___ someone in a university
___ someone in a technical institute
___ a consultant in private practice
___ other, please specify
8a. Where else do you go when seeking information? (You may need to tick more than one answer)

___ the firm's librarian
___ the library of your business or professional organisation (e.g. Wellington District Law Society library, Accountants' Society library, etc.)
___ a government department (e.g. Trade & Industry, DSIR, Justice, Ministry of Works, etc.)
___ the local City Council
___ the Standards Association
___ the National Library
___ the Scientific and Technical Information Service (SATIS)
___ your local public library
___ someone in a profession similar to your own
___ a supplier (e.g. bookseller, manufacturer, product distributor, etc.)
___ someone in a university
___ someone in a technical institute
___ a consultant in private practice
___ other, please specify
9. Do you notice an improvement in any of the following areas since the firm employed a professional librarian? (You may need to tick more than one answer)

- Elimination of duplication of research
- Reduction of the time you spend searching for information
- More confidence that the information being provided for you is correct, current and comprehensive
- Access to information sources that were previously either not known or not accessible
- Generally easier access to information wherever it is held
- Other, please specify

10. Can you give me an example from your work of a time when you were able to use the Librarian's services to save you time and/or money?
11. Which of the services that the Library offers are useful to you? Please indicate your use of the services using the scale:

1 - very useful
2 - useful
3 - not very useful
4 - not at all useful

___ A quiet place to work
___ Physical control of the collection, so that any item held can be located
___ Provision of a catalogue/index to publications held
___ Preparation and distribution of lists of new books, journal articles, etc.
___ Suggestions for strengthening your book/journal collection
___ Control of publication ordering routines
___ Information and reference services
___ Computer database searching
___ Journal circulation
___ Indexing of journal articles
___ Preparation of subject bibliographies
___ Borrowing publications from other libraries through inter-library loan
___ Photocopying
___ Reader education, i.e. the Librarian helping you to communicate your needs to her and helping you to be aware of what she can do to help you
___ Other, please specify

12. Do you have difficulty in getting information in any particular subject areas? If yes, which?

13. Are you disappointed in any way with library and/or information services? If yes, please elaborate.
14. Do you feel that the library is "established" - that it is healthy and thriving, or do you feel its future is shaky? In particular, if the librarian left the firm, would she be replaced by another professional librarian?

15. Do you consider that keeping staff informed about developments in your area should be:
   (Tick one)
   ___ the personal responsibility of managers/partners/proprietors
   ___ a general responsibility to be shared by all staff
   ___ the librarian's responsibility
   ___ other, please specify
7.

BACKGROUND INFORMATION : PERSONAL

16. What trade or professional organisations do you belong to?

17. Could you please list your educational and professional qualifications?

18. Please indicate your age on the table below:

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</tr>
</tbody>
</table>

19. What position do you hold in the firm?

20. How long have you been employed in this firm?

___ Years

21. What is your total experience in years in your professional field?

___ Years
Dear

Survey of New Special Libraries

As you know, your firm has given me permission to conduct a survey among its professional staff, in an effort to assess what difference it has made to it to have a professional librarian on staff. The survey is also designed to indicate how satisfied users are with the library and information services provided, and indicate areas of dissatisfaction.

The results of these surveys will form part of my thesis for a Master of Arts degree in Librarianship which I am undertaking at Victoria University of Wellington. I have also been given some financial support by the Trustees of the National Library, who are interested in the information needs of professions and the business community in general.

Thank you for providing me with a list of the people in your firm who are professional staff who were in the firm before the professional librarian was appointed. I enclose, for each of them, an envelope containing the questionnaire, and an envelope in which it is to be returned to you. In an effort to obtain frank and honest answers, I have told your staff members that you will not see individual survey replies, so please do not open the envelopes. I will collect them when all replies have been received, and give you a summary of results from your firm. In due course, you will also receive the comparative results from the other libraries surveyed.

As well as the survey for professional staff, there is a different questionnaire enclosed for you, the Librarian, to answer. This questionnaire will give me background information about the firm and the services that you are providing. It also gives you a chance to comment on any problems you may have had in establishing the library, and any continuing problems you encounter. Please feel free to be quite specific and frank in your discussion of these problems. You and your firm will not be identified in the written results. I believe that many of us share the same difficulties, but there is little factual documentation in this area.
Thank you for your cooperation in this project. I should be very grateful if you would endeavour to get in all the replies within a week, and let me know when they are ready for me to collect.

Yours sincerely,

Helen M. Stephen-Smith

Encls:
SURVEY OF NEW SPECIAL LIBRARIES

QUESTIONS FOR THE LIBRARIAN

1. Is the business:
   - a sole proprietorship
   - a partnership
   - a limited liability company
   - a public company
   - a subsidiary of a large company
   - other, please specify

2. How many people working in the firm are partners or proprietors?
   ......... people

3. How many people are employed in this firm including yourself?
   ......... Full-time
   ......... Part-time

4. Would you please list your educational and professional qualifications?

5. What is your total experience in years in the library/information field?

6. How long have you been employed in this firm?
7. When was a professional librarian first appointed to this firm?

8. Are you employed

..... Fulltime

..... Part-time (If part-time, please state how many hours per week you work).

9. How much did your firm spend on library and information services (excluding salaries) in 1984? Please include subscriptions to newspapers, and all publications, whether or not they are the Librarian's responsibility.

10. How much will your firm spend on library and information services (excluding salaries) in 1985? Please include subscriptions to newspapers, and all publications, whether or not they are the Librarian's responsibility.

11. What services/facilities does your library offer?
   ___ a quiet place to work
   ___ a catalogue to publications held
   ___ lending of publications
   ___ indexing of journal articles
   ___ preparation and distribution of lists of new books, journal articles, etc.
   ___ a current awareness service
   ___ recommendations to staff for specific books or journal titles to be bought
   ___ acquisition of publications
   ___ information and reference services
   ___ computer database searching
   ___ journal circulation
   ___ compilation of bibliographies
   ___ inter-library loan
   ___ photocopying of library publications
   ___ Reader education
   ___ Other, please specify
12. Which of the services that the library now offers were available before the appointment of a professional librarian?

- a quiet place to work
- a catalogue to publications held
- lending of publications
- indexing of journal articles
- preparation and distribution of lists of new books, journal articles, etc.
- a current awareness service
- recommendations to staff for specific book or journal titles to be bought
- acquisition of publications
- information and reference services
- computer database searching
- journal circulation
- compilation of bibliographies
- inter-library loan
- photocopying of library publications
- reader education
- other, please specify

13. Do you keep statistical records of library use? If yes, would you please write down any statistics you kept for the 1984 year (e.g. numbers of loans, inter-library loans, number of publications catalogued, literature searches, reference queries, photocopies made, Library Bulletins issued, etc.)
14. In the pre-establishment period of the library, was there:

___ A library staffed by a person who was not a qualified librarian
___ A library, unstaffed
___ Masses of material scattered throughout the office
___ The library truly started from "scratch"
___ Other, please specify

15. Do you feel that your library is "established" - that is, healthy and thriving, or do you feel its future is shaky? In particular, if you left the firm, are you confident that you would be replaced by another professional librarian?

16. Do you have any problems in running the library?

17. Are there any other comments you would like to make about your library and/or its services?
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