



Marketing Information Products and Services

*A Primer for Librarians and
Information Professionals*

Editors

Abhinandan K Jain

Ashok Jambhekar

T P Rama Rao

S Sreenivas Rao



IDRC - Lib.

114379

MARKETING

INFORMATION PRODUCTS AND SERVICES

A Primer for Librarians and Information Professionals

MARKETING

INFORMATION PRODUCTS AND SERVICES

A Primer for Librarians and Information Professionals

Editors

*Abhinandan K Jain, Ashok Jambhekar,
T P Rama Rao, S Sreenivas Rao*



International Development Research Centre

Ottawa Cairo Dakar Johannesburg
Montevideo Nairobi New Delhi Singapore



Tata McGraw-Hill Publishing Company Limited

NEW DELHI



McGraw-Hill Offices

New Delhi New York St. Louis San Francisco Auckland Bogotá
Caracas Lisbon London Madrid Mexico City Milan Montreal
San Juan Singapore Sydney Tokyo Toronto

ARCHIV

002:380

J3

© 1999, Indian Institute of Management, Ahmedabad

Canadian Cataloguing in Publication Data

Main entry under title:

*Marketing information products and services: a primer for librarians
and information professionals*

Co-published in Asia by Tata McGraw-Hill Publishing Company Ltd.
ISBN 088936-817-1

1. Information services—Marketing.
2. Information resources—Marketing.
3. Marketing—Management.

I. Jain, Abhinandan K.

II. International Development Research Centre (Canada)

HF5415.124M27 1999 659.1'902 C99-980192-9

No part of this publication can be reproduced in any form or by any means without the prior written permission of the publishers. This book is for sale in Canada, North America and South America.

Jointly published by International Development Research Centre
PO Box 8500, Ottawa, ON, Canada K1G 3H9 (<http://www.idrc.ca/books/>)
and Tata McGraw-Hill Publishing Company Limited,
7 West Patel Nagar, New Delhi 110 008 (<http://www.tatamcgrawhill.com>).

Typeset at Anvi Composers and printed at Rajkamal Electric Press,
B-35/9, G.T. Karnal Road, Delhi 110 033.

RZXCRRBTRYRBA

Foreword

Recognizing the importance of information in the process of development, Canada's International Development Research Centre (IDRC) has over the years supported a large number of projects aimed at developing information systems and services in support of research and development activities. An important objective related to the development of such projects was to ensure that the systems and services developed could be sustained over the long term. A crucial element in the sustainability of information systems and services is effective marketing. It presents avenues to generate revenue and reduce the financial constraints that many information services are facing in developing countries. This has long been recognized by IDRC, and the development of marketing plans has been introduced in several information projects to study how this could be achieved.

A literature review conducted in 1993 revealed that marketing of information was a relatively new issue in developing countries and that most of the literature on the subject originates in the North. The review concluded that marketing potential is underestimated by libraries and information services and that information professionals were generally reluctant to embrace the marketing concept. Information professionals need a better understanding of marketing concepts and approaches to be able to introduce them into their services and to recover the costs of the information services and products that they provide.

In this framework, leaders of a number of IDRC-supported information projects were brought together with a team of specialists in marketing of information at a meeting held at the Indian Institute of Management in Ahmedabad (IIMA), India, in February 1994. The discussion at this meeting focussed on how institutions in developing countries could be assisted in evolving relevant

marketing strategies. The meeting recommended the preparation of marketing guidelines and case studies that would help information specialists to design proper marketing strategies and marketing plans. Participants at the meeting prepared an outline for a manual that would respond to this need, and IIMA indicated its interest in coordinating the arduous work of compiling the manuscript. In October 1994, IDRC agreed to finance the activity.

This book is the result of IIMA's work. IDRC hopes that the guidelines and approaches proposed to introduce marketing activities within information services and systems will assist information professionals in developing countries with the development of sound marketing strategies. IDRC is proud to have contributed to this work—a collaborative effort of several information and development specialists from around the world.

RENALD LAFOND

*Senior Information Specialist
International Development Research Centre
Ottawa, Canada*

Preface

The information era is here. Even at the beginning of the last decade, John Naisbitt in *Megatrends* (1982) indicated that over 60 per cent of the people worked with information. He pointed out that between six and seven thousand scientific articles were being written each day, scientific and technical information was increasing by 13 per cent per year, and the rate would soon jump to perhaps 40 per cent per year.

On one hand, computers and networking have tremendously enhanced information storage, retrieval and dissemination capabilities. However, the new facilities require significant investments, which many libraries and information centres, particularly in the developing world, cannot afford.

On the other hand, economic reforms, globalization and privatization trends in the developing world lay emphasis on private enterprise and competitiveness. Consequently, government funding of libraries and information centres has been declining, and librarians and information managers have been forced to generate revenues not only for acquiring state-of-the-art facilities but also for their own survival.

Information is power, and more so in a competitive environment. Businesses, governments and individuals are collecting and storing more data than any previous generation in history (Alvin Toffler, *Powershift*, 1990). Moreover, information is being recognized as a critical resource for socio-economic development. As a result, libraries and information centres have an opportunity to tap.

This marketing guide, therefore, introduces librarians and information professionals to marketing concepts and approaches, helps them to adopt a marketing orientation, and provides them

with a step-by-step approach to developing marketing strategies and plans for their libraries or information centres.

The guide contains nine chapters and two cases studies.

- **Chapter 1:** Prof. Sreenivas Rao highlights the need for adopting a marketing approach by librarians and information managers.
- **Chapter 2:** Drawing upon an earlier research on assessment of needs of management information, Prof. Jain and Prof. Rama Rao explain concepts of marketing management and how they are useful and relevant to libraries and information centres.
- **Chapter 3:** Ms. Gumbs describes the marketing plan developed by the Technology Information Centre at the Argus Institute of Technology and, through this example provides guidelines for developing a marketing plan.
- **Chapter 4:** Prof. Koshy explains the meaning of products and services in the context of libraries and information centres, and provides guidelines for planning a portfolio of products and services.
- **Chapter 5:** Mr Vespry, Ms. Vespry and Ms. Avery discuss price—one of the four important marketing decisions. With the example of National Information Centre on Management (NICMAN) at IIMA, they explain the various considerations in taking pricing decisions.
- **Chapter 6:** Prof. Sreenivas Rao discusses another of the four marketing decisions, promotion, with examples of various libraries and information centres, such as INSDOC, ICRISAT, and CEIS; and provides guidelines for making promotion decisions.
- **Chapter 7:** Prof. Koshy deals with the rationale, procedure and steps of conceiving, designing and introducing new information products and services.
- **Chapter 8:** Mr. Chin and Prof. Jain discuss the what, why, and how of marketing research along with brief descrip-

tions, illustrations, and guidelines for planning and executing selected marketing research designs.

- **Chapter 9:** Dominique Beaulieu describes how the Centre de recherche industrielle du Québec switched from free service to charged service and brought about changes in the outlook, attitude and structure of the organization to achieve a marketing orientation.

Towards the end of the guide, two case studies have been included.

- **(A) “Caribbean Energy Information System”** by Ms. Whyte and Prof. Sreenivas Rao and
- **(B) “Asian CD-ROM on Health and Environment”** by Mr. Chin and Prof. Jain.

CEIS was set up to enhance the capabilities of the Caribbean countries in energy information collection, storage and utilization for optimum conservation and utilization of the region’s energy resources. The other case presents the market research conducted for assessing suitability and utility of CD-ROM publishing, a modern information technology, and the process of developing suitable marketing plans for the same in developing countries.

This guide can be used as

- a *text* to understand marketing concepts, tools and techniques relevant to a library/information centre,
- a *reference book* to draw up marketing strategies and plans, and
- a *training manual* in educational and training programmes for librarians and information managers.

EDITORS

Acknowledgements

This guide is an outcome of a workshop held at the Indian Institute of Management, Ahmedabad in February 1994, where project leaders of the International Development Research Centre, Canada, expressed the need for a marketing manual for librarians and information professionals. IDRC entrusted the job to the Indian Institute of Management, Ahmedabad. Mr. Renald Lafond, Senior Programme Officer, IDRC, gave us valuable guidance through-out the project. We are very grateful to him and to IDRC.

In August 1996, authors of the guide and other professionals discussed the draft threadbare. We are thankful to the following for their contributions to the guide by

- Ms. Swati Bhattacharya, Librarian, Indian Institute of Management, Calcutta;
- Mr. Chikkamalliah, Librarian, Indian Institute of Management, Bangalore;
- Dr. Roshan Raina, Librarian, Indian Institute of Management, Lucknow,
- Ms. Rumma Sharma, Librarian, All India Management Association, New Delhi.
- Dr. N.K. Gopalakrishna, Librarian, Administrative Staff College of India, Hyderabad;
- Dr. I.K. Ravichander Rao, Professor, Documentation Research and Training Centre, Bangalore;
- Mr. V.W. Karnik, Librarian, British Library, Ahmedabad; and
- Mr. P.C. Shah, Manager, National Information Centre on Textiles and Allied Subjects, Ahmedabad.

We received enthusiastic cooperation and guidance in preparing the Asian CD-ROM case study from Ms. Maria Ng Lee Hoon, International Development Research Centre, Singapore, and Dr. G.P. Phondke, National Institute of Science Communication, New Delhi, and in preparing the CEIS case study from CEIS project staff. Our special thanks to all of them.

At IIMA, Mr Ravi Acharya, DTP Coordinator, put the manual into shape. Mr PS Seshadri, Editorial Associate, edited the manuscript. Ms Shakuntala, Ms Heena Shah and Ms Sunitha P. Naidu assisted us at various stages of the project. Ms Sarala Nair and Mr R. Mahadeva Iyer shared the major responsibility of typing the manuscript. The staff of the Vikram Sarabhai Library helped us at all stages of the project. They all deserve our thanks.

Many more have directly or indirectly contributed to this work. We are grateful to all.

EDITORS

Contributors

1. **Mr Dominique Beaulieu**, a management expert, is with Centre de recherche industrielle du Québec, Québec, Canada. He has been responsible for designing the marketing strategy and plan of CRIQ for its Business and Industry information services.
2. **Mr Chin Saik Yoon** served with the International Development Research Centre as a senior professional, and now owns the publishing company Southbound Sendirian Berhad Publishers, Penang, Malaysia.
3. **Ms. Barbara Gumbs** was Head of the Technical Information Service at the Caribbean Industrial Research Institute, and has done consulting assignments for setting up information systems and developing marketing strategies and plans. She is now a Principal Consultant in Information Resources Management, Trinidad & Tobago.
4. **Prof. Abhinandan K. Jain** is professor at the Indian Institute of Management, Ahmedabad in the area of marketing. His specialization is in the field of quantitative models in marketing, strategic marketing, international marketing.
5. **Prof. Abraham Koshy** is professor at the Indian Institute of Management, Ahmedabad in the area of marketing. His specialization is in product and brand management, international marketing, and strategic marketing.
6. **Prof. T.P. Rama Rao**, is professor at the Indian Institute of management, Ahmedabad in the area of computers and Information Systems. His specialization is in management information systems, DSS and software project management.

7. **Prof. S. Sreenivas Rao** was a faculty in the Business Policy Area at the Indian Institute of Management, Ahmedabad. His specialization is in communications. He is now among the visiting faculty at the Indian Institute of Management, Ahmedabad and consultant to a business organization in Ahmedabad.
8. **Mr H. Arthur Vespry** was Director of LARDIS (Library, Reference, Documentation, and Information Service) at the Asian Institute of Technology, Bangkok, Thailand. He is now a private consultant to libraries and information Services.
9. **Ms. Mona Whyte**, Project Manager, Caribbean Energy Information System (CEIS), has been associated with the setting up of the regional information system, with its headquarters at the Scientific Research Council, in Jamaica.
10. **Ms. Marienne Vespry**, was programme officer in the Programme Management Division of the Economic and Social Commission for Asia and the Pacific (ESCAP). She had previously worked in various capacities as an editor and information officer with ESCAP, and earlier with United Nations Industrial Development Organization (UNIDO) in Vienna, the National Library of Singapore, and the IDRC, Ottawa.
11. **Ms. Christa Avere** is a Marketing Consultant.
12. **Mr Ashok Jambhekar** is Librarian and Head, National Information Centre on Management, Indian Institute of Management, Ahmedabad.

Contents

<i>Foreword</i>	<i>v</i>
<i>Preface</i>	<i>vii</i>
<i>Acknowledgements</i>	<i>xi</i>
<i>Contributors</i>	<i>xiii</i>
1. Introduction to Marketing of Information Products and Services	1
Challenges of Today and Tomorrow	1
Relevance of Marketing for Librarians and Information Managers	5
What is Marketing?	7
The Marketing Approach	8
What Inhibits from being Marketing Oriented?	11
The Four Barriers to Marketing	13
Status of the Use of Marketing Concept in Libraries and Information Centres	14
Need for Strategic Intervention	16
References	19
2. Key Concepts in Marketing of Information Products and Services	20
Introduction	20
What is Marketing Management?	21
Key Purposes of Marketing	23
Organizational Orientations Towards Marketing	28
Factors Affecting Achievement of Objectives	33
Marketing Management	41

Summary and Conclusions 48

References 48

3. How to Develop a Marketing Plan 49

Introduction 49

Measure the Performance 53

Conduct Marketing Audit 54

Summarize Findings of Marketing Audit 63

Select Strategic Direction 67

Develop a Marketing Plan 77

Implementation and Control 80

Summary 91

References 106

4. How to Plan Information Products and Services Policy 108

Introduction 108

Key Concepts in Managing

Products and Services 115

Steps in Planning Product/Service Policy 126

Summary and Guidelines for Product/Service Policy 143

References 151

5. How to Price Information Products and Services 152

Introduction 152

Considerations in Pricing 153

Select a Base Price 170

Adapting the Base Price 188

Revising Prices 196

Summary and Conclusions 198

References 199

6. How to Promote Information Products and Services 202

Promotion—The Fourth ‘P’ 202

Promotion Methods 203

Promotion Activities 204

How to Develop a Communication Programme 205

Conclusion 218

Guidelines for Promotion 220

How to Develop a Communication Programme (An Example) 221 References 225	
7. How to Conceive, Design and Introduce New Information Products and Services	226
Introduction 226	
Specifying Strategic Objectives of New Products/Services 232	
Generating New Product/Service Ideas 233	
Screening New Product/Service Ideas 234	
Developing Product/Service Concept (Offer Development) 238	
Refining and Testing Product/Service Concept 241	
Designing the Product/Service 247	
Product Testing 251	
Analysis of Commercial Feasibility 255	
Developing Marketing Strategy and Plan 256	
Test Marketing 259	
Commercializing the Product/Service 262	
Summary 263	
References 266	
8. How to Conduct Marketing Research for Marketing of Information Products and Services	267
Introduction 267	
Preparing the Research Brief 271	
Developing a Research Plan 284	
Short Descriptions of Selected Research Designs 293	
Summary and Conclusions 325	
References 326	
9. Preparing the Organization for Marketing of Information Products and Services	328
Background 328	
Assessing/Auditing an Organization's Service Quality 330	
Preparing People for Change 336	
Strategies for Making Changes in Staff 339	
Strategies for Changing the Organization's Systems 342	
Marketing 345	

The Impact of the Sale of Information Services on the Overall Organization	347
Conclusion	349
References	351

Case Study A
Marketing Research for Asian CD-ROM
on Health and Environment

Part I—Selection of a Research Agency	355
Information Environment	355
IDRC: South-East and East Asian Office	357
Choice of Technology	358
Developments So Far	359
Questions for Discussion	361
Part II—Finalizing Research Plan	370
Background	370
Research/Brief Objective	372
Methods	373
Research Design	374
Literature Review	374
Postal Survey	375
The Mailing List	376
The Questionnaire	377
Data Collection	377
Focus Group Discussions	378
Consultation with Database Owners	379
Interviews with CD-ROM Distributors	380
Questions for Discussion	380
References	380
Part III—Research Findings on Feasibility	392
Respondent Profile	392
Questions for Discussion	400
Part IV—Recommendations on the Marketing Plan	401
Buyers and Users	402
Positions and Occupations of Interested Respondents	402
The Product	405
Place	407

Price	410
Promotion	410
Questions for Discussion	415

Case Study B

Caribbean Energy Information System

Part I—Origin (1984–87)	419
Workshop	419
Missions	423
Sponsor	427
CEIS	428
Questions for Discussion	429
Part II—Getting Established (1987–93)	430
Strengths	431
Products and Services Introduced	431
Market	432
Pilot Surveys	432
CEIS	435
User Needs Survey in 1993	435
Questions for Discussion	447
Part III—After the Survey (1993–95)	448
Development of Specialized Services for Targeted Users	448
Development of a Special Interest Group	449
Creation of Energy Models	450
Revamping of Products	450
Petstats	452
Promotion Policies	453
Promotion Implementation	454
Pricing	457
Distribution	459
Role of NFPs	460
Results and Conclusion	460
What Next? (1996–99)	461
Questions for Discussion	462

How to Conduct Marketing Research for Marketing of Information Products and Services

■ *Chin Saik Yoon and Abhinandan K. Jain*



INTRODUCTION

What is Marketing Research

‘Marketing research is the systematic and objective search for and analysis of information relevant to the identification and solution of any problem in the field of marketing.’ (Green *et al.*)

We need to note the two crucial words here—systematic and objective. The definition emphasizes a systematic approach in the search and analysis of information. It implies that all the steps in the research process should be carefully designed and implemented. The other word, objective, is the most crucial in the sense, that the purpose of marketing research is really to get an objective assessment for improved marketing decisions, rather than to prove or disprove a manager’s prior opinion.

Why Marketing Research

Marketing research is useful for improving marketing decisions and for understanding the marketing phenomenon, in any marketing situation. It is especially useful for the marketing of library information products and services.

It would have been obvious from the previous chapters, that (additional) information would be needed to improve decision making in the various areas of marketing of information products and services. The decisions to be made are identification and selection of marketing opportunities (Chapter 3), design of marketing strategy for tapping the selected opportunity (Chapter 3), design of marketing mix elements, i.e. products, price, promotion, and distribution (Chapters 4–6), designing and introducing new products (Chapter 7), and feedback and control of the marketing effort (Chapters 3–8). To improve the decision making in the above said areas, an understanding of macro environment, competition, distribution system, communication system, and above all, the current and potential customers is essential.

The importance of marketing research for librarians is enhanced because of their current background and working.¹ Firstly, librarians/information managers have rarely ventured out to assess the requirements of their clients; they are used to clients coming to them. Secondly, they have usually been managers of a storehouse of information sources, and have only occasionally been pro-active in understanding the requirements of even those who come to the library. Thirdly, among the librarians who could assess these requirements, their own ability to process the available information to suit the client's requirements and to get not available within the library information from outside sources, has

1. In courses on library science, there is usually a paper on research methodology. Also, some inputs are provided on conducting user studies and user's education programmes. However, useful and significant developments in marketing research, which could be quite helpful in marketing library products/services, have not been necessarily reflected in these inputs.

been severely curtailed because of the lack of resources. Finally, if the librarians wish to acquire resources to service the clients, they need to justify the cost by assessing the value/revenue that these services/products, generated from such resources, would get from the clients.

The important areas of research for marketing of information products and services, as judged from the kind of literature available, are the areas of strategy/plan formulation and control. In formulation of strategy/plan, it is necessary to explore the buyer behaviour to help generate alternatives for segmenting/targeting, positioning, and designing of the marketing mix (products, price, promotion and distribution). The next most important step is to assess the revenues and costs of each option in the above decision areas, so as to make appropriate decisions. Monitoring and control of strategies is also an important decision area, to improve the implementation of plans by setting up a feedback and control system. (Jain *et al.*)

Steps in Conducting Marketing Research

The first step in marketing research is to define the purpose of research and associated problems with it. These need to be broken down into information needs and specific variables to be collected from different sources. Also, the value of such additional information needs to be assessed, to decide on how much to spend on conducting the research. The second step is the preparation of a research plan, consisting of research design to achieve the objectives, method(s) of data collection so that the needed information is obtained, and methods of analysing the collected data to achieve the objectives of research and resolve the decision problem. The third step is the implementation of the research plan for collecting the data. The last step is that of interpretation of results, and preparation of action plan to use the results.

What are the Roles of a Librarian and Research Agency

There may be a need to undertake the marketing research through research agencies, who have proficiency in undertaking marketing research. While a research agency might know how to conduct the research by using the most appropriate methods, the use of the research results, in terms of taking specific decisions and implementing them, would be the responsibility of the library/information centre, through its own staff. In terms of the above four steps, the step of problem definition is the primary responsibility of the library/information centre. The research agency is likely to play a role in terms of asking sharp questions about what information would help the decision maker in making a (set of) specific decisions. The role of the research agency becomes quite significant in preparing a research plan, which is the second step. The role of librarian/information manager is to primarily see that the information intended to be collected through the proposed methods, would actually help him to resolve his decision problem/objective. The third step of collecting and analysing data is almost entirely to be conducted by the research agency.

Interpretation of results, may be proposed by the research agency, but is not a prime responsibility of the supplier. The major responsibility for interpreting the results, and preparing an action plan, rests with the decision maker.

Tasks for the Librarian/Manager

The assessment of the tasks described earlier, boils down to the one shown in Table 8.1.

Preparation of brief can be improved through an interaction with the research agency. However, evaluation of a research proposal would require expertise on the part of the librarian, in terms of understanding of the research design, data collection approaches, sampling, and data analysis. Understanding of these aspects would also be required for interpreting the results of the research studies and preparing the action plan.

TABLE
8.1
Tasks of the Librarian/Manager in Marketing Research

<i>Task</i>	<i>Description</i>
Preparing a Brief:	– Describing the objectives of research and deciding the maximum budget.
Deciding the Implementing Agency:	– Whether to do the research internally, or seek the help of outside/independent research agency. – In case an outside agency has to be used, seek proposals, evaluate the proposals and decide on the agency.
Receive the report,	interpret results and prepare action plan.

Thus, the librarian/information centre manager needs to:

- Be able to define research objectives and information requirements.
- Understand research design and their pros and cons, so as to make an appropriate choice of the research proposal and research agency.
- Understand data analysis to interpret the results of research.



PREPARING THE RESEARCH BRIEF

Purpose of a Research Brief

This is the crucial first step in the commissioning of a research. A good brief will lead to precise information, relevant data, and clear recommendations at an appropriate cost, which will help to effectively plan the development of the products and their successful promotion to the users and customers. A fuzzy brief will bring corresponding hazy results or information which is probably already known. A poor or absent brief will, very likely, bring grief and disappointment in terms of decisions, as well as a feeling of wasted resources.

The research brief can take many forms. In most cases, it will be a written document drafted by the manager commissioning the research. In other cases, it may be articulated verbally by the manager to the researcher who then drafts the brief, based on his/her interpretation of what is requested, before submitting it to the manager for approval. The brief is usually formalized as a contract for consultancy services, if external researchers are to be appointed or as, an official request for research services if an in-house research unit is employed.

A brief should define at least four components: overview of the products and services or any other aspects which are the subject of the research, the objectives of research, anticipated outputs (e.g., a report, and sometimes, business and marketing plans), and the schedule for implementing and completing the research. A brief when finalised (a contract for external researchers), will also include details of expenditure and their timing (like fees and reimbursement of research expenses to external researchers).

Thus, the research brief has two purposes, both critical from the point of view of a librarian/manager namely, to define the research purpose precisely and to assess the budget for conducting the research.

Defining Specific Research Purposes/Objectives and Problems

A decision maker faces one or more problems and is interested in seeking a solution to the same. In the context of such situations, he may not even precisely know the decision area which needs to be addressed. Even if he knows this, the options available may not be clear. Even if they are known, evaluation of each of the options on the criteria (to be used for choosing the best option) may not be known, or may not be known with certainty. The overall purpose of research can be thus classified into exploratory and conclusive. *Exploratory* research includes purposes like structuring a decision problem, generating alternative courses of action, and understanding the dimensions of buyer behaviour,

etc. *Conclusive* research, on the other hand, deals with assessing the outcomes of specific actions.

General Purposes of Marketing Research

The important decision areas in marketing are selection of market opportunity (which include selection of product-market, selection of segments for targeting, and choice of positioning, i.e., what you want for the customers in the chosen segment belonging to specific product-market choice), designing marketing plan (specific decisions on product, price, promotion, and distribution) and monitoring and control (market research and feedback). The three situations which have just been described and which decision makers may have to face, might arise in the context of any of these decision areas.

Exploring Buyer Behaviour for Opportunity Analysis

The manager may sense that there is a group of people (e.g. aquaculturists, single parents or trade unionists) who have unfulfilled information needs and would thus, like to develop information products and services for them. Here, the thrust will be to learn about their background, ways of life and work, needs, wants, information seeking behaviour, and information usage patterns.

This approach is referred to as 'demand driven'. Or, the manager may work for an organization which already produces a range of products and services and is interested, principally, in increasing the usage and sale of these products and services. The brief in this case is to identify potential users and buyers, and to discover their background, their access to information retrieval hardware such as computers, modems, CD-ROM drives, microfilm readers, video cassette recorders, etc. and information usage patterns. This approach is referred to as 'supply driven'.

Designing Marketing Plan

- *Products and Services* In the demand driven approach, research should discover and describe the products and services required by the target group. For the supply driven

approach, research should gather user feedback on products and services. Some of the areas for feedback include usefulness of products, ways in which information is applied by users, ease of use, suitability of format or medium, perceived quality and reliability of information supplied, suggestions for improvement.

- ▶ *Place or Distribution Channels and Service Centres* The specific objective here is to discover the ease or difficulty of obtaining the products and services, and the timeliness of the information supplied. Included here is the quality of technical support for products, computer-based databases, CD-ROMs, and dial-in information services.
- ▶ *Pricing* The objective is to appraise the price which users are willing to pay for the products and services. In some instances, it is useful to find out the total budget which users and buyers set aside for acquiring information products and services. This is especially useful in the demand-driven approach where, managers have the luxury of developing product(s) from scratch and pricing them according to what the market is willing to bear. The concept of price should not be taken only to mean the money which users will have to pay to obtain the particular product you are selling. With many new information products, the total cost of using your product may be significantly more than your price. For example, a user buying his/her first CD-ROM will, very likely, have to invest at the same time in hardware such as a CD-ROM drive, sound and video cards, a more powerful computer before he/she can access the information on the disc which you are selling to her. The concept of price also need not refer only to money. For example, a publisher who plans to bring out a large odd-size publication must consider the difficulties (the intangible cost) of shelving such an item in libraries, book stores and distributors' warehouses, for the many years that the title will be in circulation among the intended readers.
- ▶ *Promotional Opportunities* Under this specific objective, research should aim to find out the media and other com-

munication channels favoured by users and buyers in acquiring information. What publications and periodicals do they read regularly? Which radio stations and television channels do they tune in to? Who do they consult with? Which meetings, conferences, trade fairs do they attend? What associations are they members of? Which stores or distributors do they make purchases from? And when they do all of the above? The information so gathered should help in designing the media-mix for promotional activities.

Feedback and Control

The broad objective here is to evaluate the efficiency and effectiveness of each element of the marketing plan, the extent to which an opportunity is tapped/untapped, and the reasons thereof. Some indicators are number of actual subscribers, library's share in their purchase of information products and services, their attitude towards the products/services/library, etc. The first two can be generated through a regular feedback system, whereas, the third one (attitude tracking) may require conducting surveys at desired intervals of time, say yearly.

The specific objectives defined above need to be translated into specific information pieces and variables, along with the specification of the sources from where to collect them. For example, for fine tuning the design of specific product/service (specific objective), it may be necessary to gather information (*information needs*) on usefulness of the product/service, what is liked/disliked about the product/service, satisfaction with the product/service, propensity to buy the product/service, and suggested improvements. The information required on 'satisfaction with the product' may be in terms of (i) overall performance, (ii) specific benefits, and (iii) attributes, etc. (*variables*). It can be measured on a five point rating scale, say from very high satisfaction to very low satisfaction. The *sources of information/variables* may be specified as actual customers/dealers, etc. depending on the availability of such information/variables with the specific type of respondents.

The output of this exercise of defining the research purpose/problem would be a tabular format like the one shown in Table 8.2.

TABLE
8.2

Matrix Chart of Problem Definition

<i>Decision Problem</i>	<i>Research Issue</i>	<i>Information Needs</i>	<i>Variables</i>	<i>Source(s)</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Test Given Product	Does the product satisfy customer requirements?	What are customer requirements?	List of customer requirements	Published literature/experts/customers
		How well does the product satisfy each requirement	Overall satisfaction Satisfaction on specific requirement	Customers Customers

BOX

8.1

Steps in Deciding Research Objectives and Defining Research Problem

State the decision problem, generate alternative ways of tackling the problem, and specify the criteria on the basis of which decisions would be taken in the context of the phenomenon to be studied.

Identify the broad information required to evaluate the options on the criteria and the issues of interest to be explored.

Translate above into information requirement, variables, and sources.

Conduct a search for available information through secondary sources and decide which variables and information requirement need to be collected through additional research.

Group additional information required into research problem(s).

Draw the chart depicting decision problem(s), research problem(s), information requirements, variables, and source(s) of information.

BOX

8.2

IML at IIMA: Assessing Value of Information

Let us take the situation faced by the Librarian of IIM Ahmedabad, of whether to introduce a new product, i.e., IML (Index of Management Literature) (Option 1) or not (Option 2).

He has analysed the market thoroughly and found that either this product would click with the managers or it would not (states of nature or event or outcome).

If it clicks, the product would capture about 15% of the market. On the other hand, if it does not click, only about 1% of managers would subscribe to it.

The value of each of these two outcomes, in terms of contribution over the next 3 years, was calculated by the librarian (pay off). The pay-off of options 1 and 2 were assessed as a positive contribution of Rs.1.5 million and a negative contribution of Rs. 0.5 million for market shares of 15% and 1%, respectively.

He also assessed that there was a 30% chance of achieving a penetration of 15% of the market, and a 70% chance of achieving 1% penetration. The above situation has been shown in Table 8.3.

If the librarian was to decide without collecting additional information, he would obviously choose the action of introducing the product. This is because this action has an expected value of $(0.3 \times 1.5 + 0.7 \times (-0.5)) = \text{Rs. } 0.10 \text{ million}$, which is higher than the expected pay off value of not introducing the product (Rs. 0.0).

If you were in the position of the librarian of IIM Ahmedabad, would you ask for research? If yes, how much money would you spend? A way of resolving this dilemma is to assume that the research would give 100% accurate information. Assuming 100% accuracy, as librarian, you would:

- Introduce the product (action 1) if the predicted penetration was 5% with a pay off of Rs. 1.5 million.
- Not introduce the product (action 2) if the predicted penetration was 1% with pay off of Rs. 0.0 million.

Given that the chance of event 1 or 2 taking place is 0.3 and 0.7 respectively, the strategy after perfect information would yield: $(0.3 \times 1.5 + 0.7 \times 0 = 0.45 + 0.0) = \text{Rs. } 0.45 \text{ million}$.

Now the value of the decision after collecting perfect information is Rs. 0.45 million which is Rs. 0.35 million more than the value of the decision before collecting additional information. (whose expected pay off was Rs. 0.10 million).

Hence, the value of research/additional information is Rs. 0.35 million, if the information is 100% accurate.

TABLE
8.3

Pay-Off Table (Pay-off in Rs. million)

Action	Outcome				
	Penetration 15%		Penetration 1%		Expected Value
	Chance	Pay-Off	Chance	Pay-Off	
Introduce	0.3	1.5	0.7	-0.5	0.10
Do not Introduce	0.3	0	0.7	0	0.00

Assessing the Value of Information

The importance of assessing the value of information arises from the fact, that the manager/librarian will decide to conduct research/collect additional information if its value is more than its cost. Bayesian approach to decision making provides a way of assessing the value of additional information. (Green *et al.*) A detailed treatment of the subject is not within the scope of the chapter. However, we will present the broad approach and its use in a specific situation to arrive at the upper limit of the value of information, so as to provide the logic of the approach. The value so calculated/assessed when compared with the cost, would help in deciding the upper limit of budget to be spent on collecting additional information. (see Box 8.3)

Contents of Research Brief

For the purpose of sharing with the research agency, the brief would have the following structure with an indication of the upper limit of the budget. However, for internal purposes one has to assess the real upper limit on the budget.

Simple language should be used to frame the brief. It should be kept as short and as precise as possible. The document, while mainly intended for the reference of the researchers, will also be frequently read by the staff of the organization whose whole-hearted cooperation is required during the research. An easily understood brief will help to mobilize their support, and diffuse any threat they may perceive in the research process.

BOX

8.3

Steps in Assessing the Value of Information

Value of decision before collecting information:

- Identify decision problem and generate options.
- Assess the likely outcomes.
- Assess the chance of each outcome.
- Calculate the net pay-off of each outcome, for each of the options.
- For each specific option, calculate the expected pay-off: For this, multiply the chance of each outcome by the net pay-off of the outcome. Sum up such values for all the outcomes of the option.
- Select the option with maximum expected net pay off. Denote this value as A.

Value of additional information:

- Assume that research would provide 100% accurate information.
- For each outcome, assuming that the outcome would take place with 100% certainty, choose what is the best action and calculate the net value of the option.
- Assuming best action for each outcome, multiply net value of each outcome by the chance of that outcome, and sum up the over all outcomes. Term this value as B.

Value of additional information:

- The amount $(B-A)$ gives the maximum value of research/additional information for the decision problem under consideration.

A brief should contain the following:

- ***Executive Summary:*** Two or three short paragraphs summarising the main intentions and outputs of the research—aim it at senior management who seldom have the time, nor patience, to read lengthy documents.
- ***Background & Rationale:*** One or two pages describing the products and services to be studied: how they came to, or will be, produced, reasons for production (profit is seldom the prime reason in information providing operations), intended users and beneficiaries, track record of usage or sales to-date, problems faced, potential sensed, competing organizations and their products and services, and a brief overview of the sector or environment in which the

organization has operated in the past, and the forecasted environment in which it will operate in the future.

- *Objectives of Research:* This is the heart of the brief. First state the overall objectives—these will be the long term impact which the research is expected to help in making. For example, developing a plan to increase net income to a point when operations will become self-sustaining. This section is usually a paragraph long. Its purpose is to act as the main reference point for the specific objectives which follow.
- *Expected Outputs:* These must be very clearly itemised and normally include a report, original copies of all completed questionnaires collected, copies of all prototype products, promotional materials, etc. tested, mailing lists used, and audio-visual recordings made of experiments, focus groups or other events.
- *Schedule of Work:* The best way is to display this as a Gant Chart showing the time lines for every distinct activity, beginning with the pre-testing of research instruments and methods, and ending with the writing of the final report.
- *Statement of copyright* (and secrecy, where applicable).

How to Prepare a Brief

There are two approaches to prepare a marketing research brief: backward market research and traditional market research. The method of defining research problem belongs to the latter category.

Backward Market Research Approach (Andreasen)

Since information marketing is a relatively new concept, it is possible, that a manager may not be familiar enough with all aspects of the marketing process to permit him/her to draft an effective research brief. The researchers themselves, may also not be familiar enough with the specifics of marketing information to permit them to take the lead in creating the brief. What process

should one use in such an instance to create the brief? The answer often lies in a method called Backward Market Research developed by A. R. Andreasen (1985). It has as its premise that the best way to design usable research is to start where the process usually ends and then work backward. This translates, in practice, to the manager and his/her researchers visualizing the contents of the final research report and its role in guiding the board of directors to make practical policy, management and operational decisions on the development and marketing of the products and services concerned.

This exercise of visualizing the report is initiated by the researchers. After reviewing relevant literature, secondary data, existing sale and usage data, and conducting an audit (examination) of the products and services, the researchers write-up a mock report, complete with imaginary statistics, cash-flow-projections, potential alternatives, and recommendations for action.

This mock report is presented to the full board of directors and managers (or relevant policy-makers) who will eventually be using the actual research report to make real decisions on marketing. The board members and managers are then invited to critique the mock report. They are invited to describe what they like and do not like about the presentation, and the decisions which they can or cannot make based on it.

Frank and direct criticism may clash with many cultures found in developing countries. Researchers who sense that it is not realistic to expect managers and board members to make spontaneous criticism after such presentations may choose, instead, to invite these policy-makers to advise the research team on two fronts:

- The additional research data which they want gathered and analysed.
- The additional findings they want included in the final report.

This indirect approach involves managers and board members as senior advisors, a role they are probably most comfortable with performing.

Besides the policy-makers, researchers may find it useful to conduct a similar presentation and feedback session with middle-level management staff in the organization. These are the people who may not make the decisions but, play the crucial role of implementing the decisions that have been made. They are also the best critics for operational details and probably have a superior feel for actual market conditions and mechanisms. Many of them will probably be motivated by the presentation, to provide the researchers with important data and information, which will further the objectives of the research.

Besides ensuring that the research will lead to results which are useful to people for whom it is intended, 'Backward' Market Research also helps in giving a real sense of ownership of the research process to everyone involved. Because research is not in the main stream of what everyone does in an organization, it is seldom fully understood and appreciated. Many even find the process threatening. This approach of involving the key people right from the beginning reassures them that research serves their common interest, and that they have a say and a stake in it.

This method for developing a brief is probably the most time consuming. It is for this reason, that it is often avoided by researchers who are in a hurry to get the job done. Clients commissioning research avoid the method for the same reason. Research managers, in particular, find it difficult to negotiate with their CEOs to open-up board meetings to such an unorthodox agenda item. However, experience has often shown that this investment of time and resources up-front pays back many times afterwards by producing relevant, usable and acceptable research findings. It is at the same time a rewarding learning experience for everyone.

The premise and steps of 'Backward' Market Research are summarised in Box 8.4, 'Backward Market Research'.

The Classical Research Approach

In the classical approach, the manager who contracts the research to external marketing consultants normally prepares the first draft

BOX

8.4

Backward Market Research (Andreasen)*Premise*

The best way to design usable research is to start where the process usually ends and then work backward.

Steps

1. Determine how the research results will be implemented.
2. Determine what the final report should contain and how it will look.
3. Specify the analyses necessary to fill in the blanks in the research report.
4. Determine the kind of data that must be assembled to carry out these analyses.
5. Scan available secondary sources to see if the specified data can be obtained quickly from others.
6. If 'no', design instruments and a sampling plan that will yield the data to fit the analyses.
7. Carry out the field work.
8. Do the analysis and write the report.

of the research brief. Her/his colleagues and supervisors will be consulted and invited to vet and improve upon the draft. Once everyone concerned is satisfied with it, the brief is handed over to the researchers as a part of the contract for their services. Many research managers find it very useful to involve the researchers in the finalization of the brief. This is done by providing them with a draft of the brief and contract, for their comments, before they are finalized and signed. In the case of in-house researchers, the brief may be drafted by the manager or the researcher selected for the project. In the latter, the researchers are commonly provided with a verbal explanation and description of what is required, together with relevant background documents and samples of products or demonstration of services to be studied. The researchers next, meet with the key people in the organization to seek their views on the research. A brief is drafted at the end of the consultations, for circulation to all concerned, for their comments and endorsement. This is often a quick

process which may be completed in a couple of weeks in small organizations. However in large institutions, and when the research may be contentious (such as, when it gets drawn into departmental rivalries) this process may take months. Such hazards aside, the involvement of as many people as practical in this process, is desirable for sharpening various facets of the brief, and for giving ownership of subsequent research activities and output to members of the organization.

Summary on Preparing Research Brief

- Research brief is a document which outlines the purpose of research, information required to achieve the purpose, and the maximum budget that can be spent on it.
- It is advisable to use the technique of backward marketing research to arrive at the brief through consultations between the research agency and research user/decision maker.
- The upper limit on the budget for research can be decided by using Bayesian analysis.



DEVELOPING A RESEARCH PLAN

After developing the research brief, the next step in marketing research is the development of a research plan/design. The librarian may not have the research expertise to undertake this activity. He may have to take the help of an outside agency/consultant to develop one. The selection of such an agency/consultant becomes, therefore, an important task. It is incumbent on the librarian/manager to have a minimum understanding of research plans, so that the proposals submitted by the research agency are evaluated appropriately. Also, when the research results are presented, he should be able to interpret them for his decision making purposes.

What is a Research Plan

Marketing research plan, to meet requirements of objectivity and systematic approach, is a written document outlining specific steps for conducting the research. It is the research approach, consisting of one or more studies with details of specific research designs to accomplish the purposes of research. Each design used, needs to be described in terms of data collection approach, sample design and selection, implementation procedures, and proposed analysis of data. The plan would specify the personnel, the time, and the monetary resources required for conducting the research. Besides, the research plan would provide the schedule and the budget of each activity of each design, which can be used for monitoring and control of activities of each design and the plan as a whole. In summary, a research plan would consist of (i) description of overall research approach, (ii) number and sequence of studies, (iii) data collection approach, sample design and data analysis procedure for each study and the research as a whole, and (iv) personnel required, time, and cost/budget estimates.

A research budget should provide for the following items:

- ▶ *Professional Fees:* For the principal investigator, assisting researchers, subject matter specialist, statisticians, computer programmers, data-entry staff, secretarial staff, mail-room personnel, transportation staff, accountants (if cash flow projections are required), lawyers (if advice on contracts and copyright are needed), etc.
- ▶ *Prototype Development:* This may range from the design of a simple leaflet and creating a visual of it, to developing search and retrieval software, and processing of data for mounting on to a prototype CD-ROM.
- ▶ *Research Supporting Materials:* These may include printing of questionnaires, envelopes, stationery, rental of office space, and computer hardware at field sites for conducting the research, etc.
- ▶ *Travel Expenses:* For the field staff include transportation costs and living expenses.

- *Communication Costs:* For postage (can be considerable amount for an international postal survey), telephones, facsimile, e-mail, video-conferencing, etc.
- *Reference Materials and Services:* Subscriptions to relevant journals, trade publications, CD-ROMs, competing products, literature search and review on commercial databases, etc.
- *Hardware:* Such as computers, CD-ROM drives, video cassette recorders, video cameras, still cameras, etc.
- *Insurance:* For staff involved and to indemnify against their risks.
- *Data Analysis:* This item comprises the wages (which may be budgeted for under 'Professional Fees' in some organizations) of people doing the coding of questionnaires, entry of data into computers, and the analysis of the data processed. Additional funds must be set aside if computers and other peripherals (such as, Optical Character Recognition machines) need to be rented or purchased for the research. Ample funds should also be set aside for purchasing or customizing statistical software to meet your needs.
- *Research Report:* Include the fees of the principal researcher and others involved in writing up the report. If a professional looking document is required, budget also for the desk-top publishing of the text, and the duplication/printing and binding of the required number of copies of the document.

Types of Research Designs and Data Collection Approach

Research designs can be classified in very many ways. However, a useful classification from managers' point of view is by purpose of research. From the point of view of a researcher, a useful classification is by the type of expertise required to conduct research. Understanding of research designs on both dimensions is necessary, to finally choose an appropriate design that suits the overall purposes of a study.

As mentioned elsewhere in this chapter, there could be two broad purposes of research: *exploratory* and *conclusive*.

The first refers to the exploration of different types of marketing phenomenon for (i) structuring a decision problem, (ii) generating alternative courses of action for resolving the problems, and (iii) understanding the dimensions of any marketing phenomenon like buyer behaviour, attitude, etc.

Conclusive research design builds on the understanding obtained through exploratory research, and is of two types: *descriptive* and *causative*. In the illustration of whether to introduce IML, it may be possible and desirable to describe potential managers on various characteristics. This description might help in, say, segmenting the market. The description may also be sought to build a relationship between intention to buy and manager's characteristics. This description, may then help in assessing the level of penetration expected to be reached, if the product was introduced among similar target audiences. Both these would be descriptive researches. On the other hand, it may be possible to devise a marketing plan for marketing the IML and testing it in a representative market (segment) by actually implementing the marketing plan and observing sales and assessing attitudes and penetration. This research design is causative in the sense that a stimulus (marketing plan, as a whole) is introduced in the system (market) and parameters of interest of the system (sales, penetration, and attitudes) are assessed. Other things being equal, the assessed changes in the parameters may be a result of the manipulation of the input variable, in this case the marketing plan.

According to the expertise required to conduct research, research designs can be classified as follows: studies of secondary sources of information (like raw data, reports, and case studies), informal discussions, indepth studies (of particular individuals and situations), focus group discussions, seminars and workshops (of groups of people), large scale surveys, experiments (laboratory and in-field), and simulation. Almost all these designs could be used for the exploratory purpose. Descriptive research designs, most often used in marketing, include study of secondary

sources, case studies, and large scale surveys. Causal research designs that are used, are primarily, survey and experiments.

Data collection approaches vary according to the type of information to be collected. The information needed in marketing research studies can be classified as (i) stable characteristics of products/respondents, etc. (states of being), (ii) awareness attitude, etc. of respondents (states of mind), and (iii) behaviour of people and forces involved in marketing. Also, the sources from which information is collected are classified as secondary and primary. There are three main methods of data collection:

- ❑ Systematic abstraction in case of secondary sources.
- ❑ Observation of behaviour and other observable characteristics in case of primary sources, through human or mechanical means.
- ❑ Question response method in case of all types of information from primary sources.

Question response method is the most used method of data collection in marketing research. In this method, the questions may be either structured or unstructured. Also, the questions may be asked directly or indirectly. It is quite critical to assess what kind of questioning is to be used. For example, in a situation where the researcher is trying to explore a phenomenon, it would not be feasible to ask a structured question. On the other hand, if the subject under investigation is well known, it may be efficient to use a structured question. It is best to question the respondents directly. However, in some situations it may be necessary to ask a question indirectly, like when one is embarrassed to talk about oneself, but free to talk about a third person.

In case of research for information products and services, a number of issues like how managers use the information are not known well. In such situations it may be better to ask unstructured questions. Similarly, in an organization which is fast adopting IT, a direct question about the usage of computers may not get the real response from older employees, as they may not actually be using computers, but would not like to admit it. In

such situations, indirect methods of eliciting valid responses may be needed.

We would describe the important features of few of the commonly used designs, to provide an understanding in a later section. Each design would be described in terms of data collection approach, sampling, data analysis, and the care required to execute the same.

Criteria for Selecting Research Designs

Selection of a research design is both an art and a science. It requires a high degree of professional skill and experience to be able to make such a decision. Some of the considerations which go into selecting a proper design are (i) validity of results, (ii) reliability of results, (iii) desired level of secrecy in study, (iv) time available for the study, (v) cost vs benefits of study, (vi) availability of required type of personnel, and (vii) researcher's personal consideration.

- *Validity of Results:* A research design should be so chosen that the information and results obtained through it are about the real variable/phenomenon under study.
- *Reliability of Results:* The chosen research design should be such that if the same design is employed to gather the same information from other similar respondents, or the same respondents, at another point in time, the results and the information obtained would not be significantly different from the ones obtained earlier.
- *Secrecy:* In a competitive environment, it is sometimes very essential that the kind of study and results should be kept confidential. Such situations arise particularly in case of new product introduction, pricing decisions, etc. A design, therefore, should be such that the results remain secret, to the desired extent. Generally, it is much easier to keep the results secret, but the study and possible options being tested could become known to the competitors, if a large scale study is undertaken in the field.

- *Time Available for Study:* The time available for conducting the study is not only governed by the dates set for decision-making in a marketing plan, but also by the degree of secrecy required in the particular situation. A study should be completed in the time that the above considerations warrant.
- *Cost vs Benefits of Study:* Generally, the cost of conducting the study should not exceed the expected value of losses that would be incurred if a wrong decision was made on the basis of prior available information. Bayesian Statistics could be made use of to assess this aspect of a design.
- *Personnel Requirement:* The design selected should be such that the required kind of personnel (for designing and executing it and for analyzing and interpreting the data) are available to the organization (either within or outside) and have time to devote to the study during the scheduled time of research.
- *Personal Preferences of Researchers:* The available research designs need to be evaluated on all the aspects mentioned above. If factual information was available on the above aspects, it would be a pretty scientific way of evaluating alternative designs. However, factual information is generally not available and in some cases, like quality of personnel, cannot be available with a high degree of certainty. It is here that the personal experience of the researcher, which is probably biased, plays a significant role. All that can be said is that the researcher should try and be objective, to the extent he can, in evaluating and selecting an appropriate design. However, his decision would be final because it is ultimately his responsibility. The skill or the art of making such decisions is equally important for a researcher.

How to Develop a Research Plan and Select an Agency

Even in the best of marketing organizations, development of an appropriate plan is the responsibility of a selected research

agency. The agency not only helps in sharpening the research brief, but also takes the major responsibility of developing it and clearing it with the client, through mutual discussion and consent. In fact, the research agency, even at the time of bidding for the project, in response to a research brief, presents a fairly detailed research proposal. This proposal consists of:

- Agency's understanding of the primary and secondary objectives.
- Statement of research problems, information requirements, and relating them to the objectives.
- Research plan consisting of description of number and types of studies and their scheduling.
- For each study, description of the research design, the data collection approach, the sampling plan and size, and proposed analysis of data.
- Overall proposed analysis, explained using dummy tables, to show that the objectives would be achieved.
- Description of personnel involved.
- Time schedule of the project and budget estimates.

An agency is selected on the basis of (i) proper understanding of the brief, (ii) response to the brief through an appropriate proposal, (iii) reputation of the agency for conducting similar studies, (iv) qualifications and experience of the personnel proposed to be working on the project, (v) time and budget estimates, (vi) quality and size of the field set up, and (vii) ability to work closely with similar size and type of organization.

Having selected the agency, a thorough discussion is generally undertaken to understand the suitability of the research plan. Once it is frozen, it becomes a contract between the client and the agency. It is then used as a guide to execute and monitor the research by both, the agency and the client.

Conclusions on Research Plan

- Research plan is a written document outlining the steps for conducting research in terms of description, timing, and budget.

- It can be used as a guide to execute and monitor the project.
- It is usually prepared by a research agency, but must be acceptable to the client, so as to achieve the purposes of research.
- Librarians/information centre managers need to understand a variety of research designs and data analysis plans to improve the usefulness of research.

BOX

8.5

IML: Research Plan for Deciding to Introduce the Product

Given the nature of information required, the sources of information, and the overall objectives of research, it may be possible to decide the number and type of research studies required to achieve the research objectives. For example, the overall research purpose may be to decide whether to launch a new information product, say an IML for marketing managers in industrial enterprises. The librarian might define this problem in the following way:

Decision Problem/Options: Whether to introduce the digest of marketing articles developed by IIM Ahmedabad for marketing managers?

Criteria: For deciding whether to introduce the digest, could be:

- Likely (penetration) subscriptions by managers.
- Evaluation of the digest on attributes/benefits sought from such a product by the marketing managers.
- Overall assessment of the usefulness of the digest by the managers.

The information regarding how the proposed product would perform on the above criteria is not likely to be available through secondary sources. It is likely to be available from potential customers. Therefore, each of the above three informations is needed to resolve the decision problem. The research objective/problem may be defined as assessment of attitude/ acceptability of the managers towards the proposed product.

In terms of research plans, one possibility is to use *indepth personal interviews* of a small group of marketing managers. The researcher might develop broad guidelines to conduct the discussion on relevant dimensions. Analysis of the information collected would be on the basis of some underlying logic, revealed through the discussion and through the researcher's understanding of managers' motives, knowledge, attitudes,

(Contd)

etc. towards such products. The analysis may suggest a strong vs. weak acceptance rather than a specific value of acceptance.

An alternative research plan would be to first generate, through a *focus group discussion* with a group of marketing managers, a list of attributes/benefits sought by them in such a product. Having obtained such a list, a survey of a representative group of managers in adequate numbers (*sample*) should be conducted. This survey could pose specific questions about the respondent's assessment of (i) the performance of the digest on each attribute/benefit, (ii) overall usefulness of the IML, and (iii) likely purchase intention (with or without a price tag). Having obtained this information from a representative sample of potential clients, it would be necessary to analyse the data on (i) level of performance of the product on each attribute, (ii) establish a relationship between such performance and the overall evaluation of usefulness of the IML, and (iii) establish a relationship between purchase intention on the one hand and overall usefulness, performance on specific attributes/benefits, and characteristics of the managers on the other hand. Having thus established buying intention as a function of customer characteristics, the researcher might be able to project the likely demand from all managers, if their demographic characteristics are known from secondary data.

You would notice that the first plan consisted of only one study whereas the second plan consists of two studies. Also, the two approaches above, the *method of data collection*, the *sampling*, and the *data analysis* differ significantly. Each has its own pros and cons. The librarian must be able to judge which of the above two plans would be better to choose. For this purpose, the librarian must understand types of research designs, their pros and cons, and the criteria on which the research plans need to be evaluated. For example, if in the above research, the purpose of research is demand assessment, the second plan is obviously better suited although, it is more time consuming and costly.



SHORT DESCRIPTIONS OF SELECTED RESEARCH DESIGNS

Study of Internal Sources of Information

A number of in-library sources exist for generating the required information. The most frequently available ones might be a list of members of different types of the library/information centre and/or the parent organization, record of number of copies ordered, record of loan of books and journals (and fee paid for late return), inter-departmental memos, and minutes of meetings held for resolving similar problems.

Information on members may be available in varying degree of detail at different libraries, and could possibly be used for classifying customers (making segments). Loan record and record of copies ordered could provide a good indication of the degree of usefulness of (different type of) the base material in the library to customers. Information centres which are using computers for managing the different systems, may have a whole lot of information at the press of a button. However, such records may not provide information about what the customers are looking for and which required information is not available in the library.

Whenever information is used from internal secondary sources, one should check for (i) what exactly is contained and what does it represent, (ii) bias of the individual reporting, and (iii) misinterpretation by the person reporting.

Information obtained through internal secondary sources costs very little, is totally secret, and requires less time to gather. Its validity and reliability depends on the people and the system employed to collect and abstract/obtain the information from the secondary source.

External Secondary Source Based Studies

External secondary information may be defined as the information collected by an agency other than the library/information centre. Different types of information available from external sources could be (a) collection of facts, (b) reports/articles, etc., based on research studies and analysis and interpretation of data, and (c) case studies describing specific problem situations of interest. These type of data are collected/presented by different types of organizations like the government, academic, trade associations, etc.

While using statistical data from external secondary sources, it is essential that the bona fides of the organization collecting the data should be assessed. This is because the purpose of the organization may be biased, say for lobbying with the government. Also, the purpose of research, the definition of variables, the

method of data collection, and the sample size and plan must be carefully assessed to match with the purposes at hand, before using the same for resolving the problems. Such sources are not very costly except, when a commercial organization is offering the data as a syndicated service. Similar cautions need to be used while using the results of research studies/case studies. In addition, appropriateness of data analysis procedures needs to be assessed.

Secondary information sources could provide a significant amount of information about potential customers, i.e. commercial organizations, academic organizations, and managers in the form of directories of various types. There seems to be a paucity of research on acquisition and use of information, particularly in developing countries. However, it seems the growth of the IT industry is giving a fillip to the generation of such information.

Information from external secondary sources could be used for all three types of research studies, i.e., exploratory, descriptive, and causative—depending on the availability of information. These sources cost more and take more time to organize, than the internal sources. The validity and reliability of the information so collected needs to be assessed as mentioned above. The person conducting such a research should have a good contextual familiarity and data analysis/interpretation skills.

Study of Cases

A case is a description of a real-life situation/phenomenon. Development of case study(ies) in the context of a decision may be required, if indepth studies are not likely to provide a reasonable view of the decision situation. This may happen in situations where more than one group of respondents/situations need to be studied for obtaining a perspective of the decision situation. Take for example, a situation regarding whether to distribute goods through distributors or through the company's own sales force. The decision-maker might require information on feelings of customers, reactions of distributors, reactions of own sales force/managers, as well as performance variables

(effectiveness/efficiency) of the two alternatives. While each of these aspects could be studied through an indepth study/other exploratory/descriptive/causal study designs, a case study would put all such information in a perspective of decision making.

Case writing is an art which needs to be perfected by an individual (researcher) over a period of time. Such skills are not available very widely. Also, writing a case about a situation is much more time consuming, than probably indepth personal/group interviews. However, the information so collected, if analyzed well, could sharpen the analytical skills of defining problems, identifying alternatives, and setting up decision criteria, as well as evaluating alternative courses of action.

It must be emphasized that the use of cases for exploratory purposes is fairly well accepted, however, their use as descriptive and/or inference building tools is not so widely accepted.

A researcher might come across a number of case studies having some bearing on the kind of problem being tackled. As cases are essentially holistic descriptions, their analysis also have to be of a similar type. The researcher would be able to find certain features of the problem/situation which, in a holistic sense, is common to almost all cases. Some other features may fit the problem situation of a few cases only and still others may be specific to a case. Such an exercise, of study of cases, is likely to aid in all the three types of research purposes.

For illustrations, please see the two cases at the end of the guide. Both cases provide a realistic description of how decisions are made in libraries/information centres in developing countries.

Informal Methods

The culture of many developing countries favours informal interpersonal interactions even in the conduct of business. This, in turn, often renders informal research methods as some of the most effective for the conduct of market studies. These methods, commonly, take the form of conversations between researchers

and people who can contribute towards a particular study. Informal methods are very useful in identifying issues for formal research or in selecting a particular orientation for such a study. However, they are less effective for pin pointing, with precision, any element of a marketing mix. For example, informal methods are effective in gauging the range of prices within which a product will sell, but not the exact price. In cases when limited resources and time are available for the conduct of a formal research, informal methods may be used as a stop gap measure, until such time more formal research is possible.

Three important elements need to be considered: people, occasion and location. Given the great amount of time required by this method, the number of people covered is usually kept small. They will probably include the people who potentially, have the most to say about a product or service—the ‘champions’, ‘critics’ and ‘loyalists’. The champions are the potential users or professionals who think alike as the people who commissioned the research. The critics are those who probably disagree with the thrust of the market study, or those who have discontinued usage of the products and services being studied because they are dissatisfied with them. The ‘loyalists’ are long time users of the products and services. They are often members of the ‘silent majority’ who prefer not to articulate their views on the issues being researched. The individuals selected should evenly represent these three groups.

The ideal occasions and locations for meeting members of the selected group may differ between individuals. Researchers would suggest venues which they consider are the most comfortable for the individual. For some it may be a chat over drinks at their club, for others dinner at a local restaurant, and yet for others coffee or tea at their office. In most cases, occasions and locations which are closely related to the thrust of the research are probably the most productive for the champions and loyalists. For example, a chat or lunch at a book fair for research on a publishing programme. Such occasions and locations are ideal because samples of allied products are

available for reference, and the mental preoccupation of the moment will all stimulate natural discussions on the relevant issues. The main disadvantage is that these are public events, which may cause avoidable distractions, limiting both the time and candour of interaction. Therefore, select a quiet spot for your discussions in order to minimize these distractions. The critics often find meetings at their places of work, their home-ground, the most comfortable.

BOX

8.6

Illustration: Informal Method

The newly appointed librarian managing the collection of a local textile manufacturers' cooperative found that usage of the collection had remained sluggish ever since it started operation five years ago. During some months, less than three visitors would make use of the library in a week. The management committee of the Association had been asked by a small number of members to consider the closure of the library in view of the low rate of usage.

The librarian decided to spring into action to save the library. She decided that the first step was to conduct a small user study. As no money was available in her budget to do any formal research, she decided to make use of an up-coming trade fair of textile weaving machinery which most association members attend, as her opportunity for research. She and her assistant went to the fair ground everyday of the three days when the fair was held to meet, informally, with a cross section of members. They asked the members four questions:

1. Is information important to your business?
2. What type of information do you need which you cannot easily find?
3. In what ways and format would you like this information delivered?
4. Why are you not making frequent use of the Association's Library?

The librarian and her assistant managed to meet a total of 38 members in the three days. The total represented about 9% of the Association's total institutional membership.

The interviews showed that information was extremely important to members. Because of intense competition from other countries, members wanted information on their competitors, innovations in weaving technology, prices of raw material on the futures market, progress on trade talks with USA, and national policies on their sector of the industry.

(Contd)

They also wanted information on potential buyers in other emerging markets of the world, especially the newly independent states formed after the break-up of USSR.

Members said they wanted some information on a daily basis, these tended to relate to commodity prices and policies. They wanted such information on a single sheet of paper so that they need not spend too much time reading it. More than 75% of members interviewed said they did not use the library because it did not offer useful information. Furthermore, the entire collection was in the French language which the majority of members were not fluent in.

The librarian decided to act on the basis of these results. She launched a daily 'Cotton Market Summaries' service which comprised a page of main price indices of raw materials and finished products, compiled and translated into the local language from various foreign newspapers and information services. These pages were faxed to all members using an existing computer equipped with a fax-card and a fax 'broadcasting' software which automatically dialled preprogrammed numbers. The daily summaries always carried a one paragraph note, at the bottom of the page, announcing the latest additions to the library. Based on the interviews, these new additions tended to be trade directories and new product announcements received from various embassies of countries with which members were doing business or were interested in making contacts with. Appreciation for the library increased significantly and a multi-fold rise in visitors to the library was recorded within a short time. The library was saved.

BOX**8.7*****Guidelines for Informal Method***

1. Select an even number of 'Champions', 'Critics' and 'Loyalists' who have the most to say about the product or service being studied.
2. Meet them informally to discuss a small number of the most important questions relating to the problem or issue which you are studying.
3. Compile the answers provided by the people met.
4. Analyse the answers for trends which may lead to the forming of solutions.

Guidelines for Conducting the Discussion

Discussions will probably be unstructured. However, the researcher should bear in mind that he/she needs to obtain from the discussion, information on the four 'Ps' making up the marketing mix. Discussions should be steered in this direction. Many researchers find it useful to have, on hand, a short list of eight to ten questions as a check-list of crucial areas which must be covered. Preface discussions with a brief description of the objectives of the research, assure the informant that discussions which follow are meant only to orient the researchers in the direction of their study, and that the informant will not be cited. Then allow the informant to take the lead in discussing those issues he/she feels are the most important or relevant. Be ready to probe interesting points raised. The most useful information often emerges from such probing. If discussions stall, ask the informant questions, from the short-list, which appear to be most pertinent.

Note-taking

This is best done immediately after (and not during) the discussions. An absence of note-taking will confirm the informal nature of the discussions. The researcher should first list down the points and issues stressed by the informant. Then record notes for other supplementary points made under each of the 'Ps' making-up the marketing mix. Use the exact words spoken by the informants in the notes—indicate them with quotation marks.

Analysing Notes

The objective here is to identify salient issues and not precise numbers. Concentrate on obtaining from the loyalists, the main reasons why they choose to remain regular users or subscribers—these will be the strengths of the products and services. The champions will probably help in visualizing the future for the products. Finally, the critics will be a rich source of views on the real or perceived weaknesses of the products and marketing approaches adopted. The final report of such an exercise will probably be in two parts. The first is the researchers' overview of the opinions gathered—it may be structured in any way preferred by

the researchers. A useful approach may be following the headings of a 'SWOT analysis'—Strengths, Weaknesses, Opportunities and Threats. The second part will be appendices collating views (use actual words said within quotation marks, whenever possible) expressed by informants organized according to the 'four Ps' and further broken down to each product or service, if more than one are being researched. The sources of views expressed should not be revealed to help focus on what has been said rather than, who said it.

Ethics

Results of such research should be given limited circulation. Informants should never be quoted or identified, without their prior permission, because they took part in the exercise on the premise that they will remain anonymous. The client who commissioned the research should be reminded that the results of this method is best used for 'mapping the terrain' to be covered by more formalized research methods.

In-depth Personal Interviews

This is a method particularly suited to 'key informants' who have an in-depth understanding about the marketplace. They include frequent users of the product or service, subject matter authorities in the content areas, librarians, distributors, and retailers (such as bookstore managers). Such in-depth interviews are particularly suited to small studies which are limited by a modest research budget. They are also very useful for identifying key issues for a larger study using more formal methods. The method is particularly suited to information programmes of a local nature where a cross-section of people can be interviewed. It is less suitable for international information activities, where the cost of conducting interviews, in a sufficiently big number of countries may be formidable.

Design

There are no fixed recommendations on the number of key informants who should be interviewed in order to obtain usable

results. Begin with ten people who evenly represent various interest groups. At the end of interviews with the first group, analyse the results to see if a clear trend has appeared in the answers to the questions asked. If no, interview another ten. Repeat the process until a clear picture emerges to the key questions posed. The number ten is arbitrary. Select a number that is realistic, given the pool of key informants accessible to the researchers.

Appointments should be made in advance with each key informant to be interviewed. In most situations ask for an hour's time for the interview (most key informants are important, busy people who probably are unable to spare more than an hour for such an exercise). The request for appointments (if made over the telephone) should be followed up with a letter which briefly describes the objectives of the research. Samples of products being studied should accompany the letter. Budgets permitting, the researchers will find it useful to invite the key informants to a meal after the interviews. This is a graceful way of showing appreciation for the informants contribution. It also provides the researchers additional time to probe interesting issues emerging from the interviews.

An interview schedule consisting about eight questions should be drafted and pre-tested for these interviews. This number will allow informants and researchers about nine minutes to discuss each of the questions. The questions should address the most important aspects of each of the 'four Ps'. They should be fairly broad in nature, e.g., 'What do you think of the technical quality of the information contained in the CD-ROM?' The researcher should then probe the answers given, to obtain a clear understanding of the rationale behind each answer. For this reason, the researcher conducting the interview must have a thorough appreciation for the products being studied. Always end the interview with one final open-ended question—'Are there any important aspects of the [name of product] which we have not discussed?' Many researchers have obtained numerous critical fresh perspectives from replies to this question.

Data Collection

The most efficient method is a portable audio-cassette recorder with a highly sensitive microphone. Ask the informant for permission to audio-record the session before commencing to do so. If the informant asks not to be taped, turn to the trusty old pen and note-book. Record answers in the actual words of the informant, whenever possible. If using an audio-recorder, researchers should record the name of the informant and date of interview on to the tape, using their own voices, prior to setting out for the place of interview. This will permanently identify a tape. Place the cassette recorder on a table in front of the informant with the microphone pointing towards him and the window showing the running tape facing the researcher. Minimize handling the recorder after that in order that the informant can relax towards its presence. Use a voice-activated recorder which will automatically pause when no one speaks (such as when the informant is studying a sample product). It will save a lot of time during the transcription of the tapes.

After starting the recorder, the researcher should take about five minutes to introduce samples of the products and services being studied. This is to 'warm' the informants up to the interview, and to allow them time to relax to the presence of the recorder. Researchers should try a trick which television reporters use to obtain good on-camera interviews. After asking a question and receiving a reply which seems to have additional information behind it, pause and look politely and inquiringly at the person being interviewed. In many cases, this will cause the interviewee to volunteer additional information (often candidly making up the crux of the answer) because most people are uncomfortable with pauses and extended silence in conversations. Researchers should use this approach sparingly, just in case the interviewees should begin to question the abilities of the researchers to conduct proper interviews or even to question their sanity!

Never record or take notes during meals or tea which may follow the proper interview. However, more candid views will be obtained during such occasions. Researchers should note the

Illustration: In-depth Personal Interviews

A donor agency, which had been funding the publication of a medical journal had given notice to its editor of its intention to phase out the agency's support in a couple of years. The editor realised that the only way of ensuring the continued publication of the journal was by increasing subscriptions. Not knowing where to begin in mounting a marketing drive to obtain the additional subscriptions, he decided to do some research by meeting different people who were knowledgeable about medical sciences and promotion of scientific journals. He met with 17 people altogether—4 senior medical specialists, 8 young medical professionals, 3 librarians and 2 scientific book distributors. These meetings or in-depth interviews took place over a 13 week period and in the capitals of 3 countries from the region where the journal is circulated. The editor had successfully made full use of his travel to various international conferences and professional meetings to conduct the interview.

The result of the interviews was most revealing. The senior specialists and young professionals found parts of the journal very useful and the rest disappointing because it replicated, in an inferior way, with the coverage of *Lancet* (a well-known international journal). All of them recommended, that the journal should drop the latter and concentrate on the former, which was a unique research dealing with the traditional medicine of the region. They also complained about the long time taken from the submission of a paper to its publication. This robbed the journal of currency and frustrated contributors. The librarians described the complex decision making process followed by them in getting a journal subscription approved. The key decision-makers were identified for future promotional exercise. The librarians also made available listings of various institutions in the region which were potential subscribers to the journal. The book distributors were not able to contribute much feedback on the contents of the journal. However, they made good suggestions on the pricing of the journal and how to make it easier for subscribers to make their payments. They also suggested that the editor should arrange for his journal articles to be abstracted in a number of key international bibliographies which was an effective way of promoting the journal. They further suggested the best ways of designing effective promotional materials such as flyers and advertisements.

The editor made changes to the editorial of the journal, and designed a marketing campaign using the results of his in-depth interviews. The first round of the campaign succeeded in doubling the subscriptions to the journal. The editor is now planning to use some of his additional revenue to conduct a formal survey of his existing subscribers and potential subscribers to further improve the journal's editorial and marketing strategies. There appears a good chance that the journal will be able to break-even by the time the donor agency ceases its funding.

views expressed, immediately afterwards. However, researchers should be mindful that any information given after the proper interview is probably given off-the-record and should never be quoted without prior permission.

Data Analysis

Tapes of interviews should be transcribed as quickly as possible after an interview. The draft transcript should be reviewed and corrected, or muffled passages clarified by the researchers as soon as possible. Researchers will be likely to forget and thus, be unable to fill-in inaudible sections of the tape recording if they are left too long after the event.

The next step is to collate answers provided by the different informants to particular questions. A quick way is to photocopy all the transcripts, cut them into pieces, sort them according to the different questions and post them on to blank sheets of paper. Note, on to each cut-out, the occupational background of the informant providing the answer, e.g., librarian, lecturer, distributor, doctor, etc.

Analysis is done by reading through all the answers provided to a particular question, and seeing if they contain any general trends or make up distinct clusters; e.g., most of the informants recommending the inclusion of the same additional types of information, all librarians complaining about the clumsiness of the search and retrieval software, and all distributors asking for a larger sales commission. If the answers are diffused and provide no clear trends, proceed with the interview of another batch of informants until such time a clear picture evolves.

Focus Groups

This research method is founded on the premise that people interacting with each other, as a group, will contribute more useful information than personal interviews with them. There are three commonly cited reasons for this:

BOX

8.9

Guidelines for In-Depth Personal Interviews

1. Select about 10 people for interviews. They should comprise current and potential users, librarians, book-sellers and others who have an influence on the use of the product or service.
2. Prepare a short list of the most important questions on the market-mix.
3. Interview each person for about an hour. Tape-record each session and transcribe the recordings immediately after each set of interviews.
4. Collate answers to each question to discern trends, if any, in the answers.
5. Plan action to address those issues which are clearly identified in the trends of answers provided.

- Members of a group will be encouraged to express more of their thoughts on a particular topic by the views and feelings expressed by other participants in the group.
- The overall dynamics of the group will reveal how peer pressure contributes towards the adoption of a product or concept.
- People feel more comfortable discussing a topic when they are involved in a group discussion on it.

These assumptions reflect the North American origins of the method. Many people in developing communities react in quite the opposite way—feeling more comfortable in private interpersonal interactions rather than as a group, and more ready to agree, rather than disagree, with the views of the others. The latter creates the risk of assertive individuals dominating the process. These risks aside, the focus group method is often superior for appraising the appeal for marketability of new products and how they are packaged. Group analysis of such products usually produce more profound insights than an individual critique.

Design

- The researcher and client should draft, and agree on, the objectives of the focus groups and the anticipated outputs. This should then be translated into the form of a discussion schedule.
- Selection of the moderator who will lead the group discussions is the most important step. The moderator makes or breaks this method. Researchers can probably track down potential candidates through recommendation from their colleagues who use focus groups. An ideal moderator is a person who is flexible, has a friendly disposition, is a good listener with a good memory. The moderator must feel comfortable working with groups of people in fairly quick succession. The person should also be able to quickly to grasp the product and the research brief. An ability to quickly synthesize the many inputs of participants into common views or consensus of the group is crucial for both, probing the reasons for the consensus, and also for preparing the report of the group afterwards. Finally, if written reports are required, the moderator should also be a good writer.
- Quality time should be set aside by the researchers and client to discuss, with the moderator, the research brief and the products and services under study.
- Forming the groups is the next most important step. There is no standard rule about the size of each group. Most researchers will form groups comprising eight to ten participants. The objectives of the research will help determine the people who should be selected to form the groups. For example, if the task is to appraise the marketability of a research journal on aquaculture, then the people who should be chosen will be potential readers of the journal: researchers, teachers and students of aquaculture, the librarians who order the journal for the readers, and the jobbers who purchase the journal for the librarians. As a general rule, each group should be as homogenous as

possible in terms of age, sex, usage or non-usage of the products and services being studied.

There are four main methods of identifying potential participants: random telephone screening, selection from the membership of professional or community groups, selection from databases, and based on a screening of questionnaires returned. The increasingly common practice of recruiting people from convenient public gatherings, such as a trade fair, or just off the streets, should be avoided. People who are known to each other should never be placed in the same group—friends will inhibit the expression of each other's views. Many practitioners believe that a minimum of four to six groups must be formed and conducted to obtain reliable results.

- Selecting a suitable venue is also important. The ideal venue should be able to accommodate the group comfortably. It should be air conditioned, fairly soundproof and not have windows overlooking distracting activities. Purpose-built rooms will have a one-way mirror looking into the room from behind which, clients and researchers will observe the discussions. The moderators's chair should be positioned with its back facing the mirror so that all the participants will be looking in the direction of the observers. If no specially equipped rooms are available, allow a maximum of two observers to sit-in on the discussions. The presence of the client and the researcher responsible for the study, at the group sessions, is crucial. Their presence and observation of the proceedings is the best way of communicating the results of the exercise to them. Their presence will also allow them to prompt the facilitator to probe interesting views evolving from each of the groups.
- There should be an ample supply of paper and pencils, and soft drinks for the participants. In commercial situations, the organizers would also have prepared cheques, or cash, for paying participants an agreed participation fee immediately after the event. In the case of information products where participants are fairly senior professionals

and do not expect to be paid, appropriate gifts such as pens, books, etc. should be elegantly gift wrapped and presented to the participants at the end of the event. Be very nice to the participants because they will become either critics, or champions, of your product (especially if you have demonstrated to them a prototype) after they leave your group meeting. Unlike commercial products, information products, very often, have a small number of potential users, most of whom are closely networked with each other, so word of mouth impressions are important.

- ▶ Provide everyone with a large name tag with only the first name of the participant clearly written on it. If culturally acceptable, do not identify the positions of participants with titles such as 'Professor' or 'Father' (in the case of a Catholic priest). All participants should be encouraged to interact on as equal a basis as possible.
- ▶ The focus group discussions can begin after these preparations are complete. The moderator should first welcome participants, then introduce him/herself (stress the point that the moderator is not a member of staff of the organization producing the product to emphasize his/her neutrality). The moderator should next review the objectives of the session. The length of the session should be stated at this stage. Point out that soft drinks are available at the back of the room (get some one to serve the drinks, if local culture requires that this be done) and announce time for the mid-session break. The break is important for the moderator to consult with the client and researcher if they want to probe any aspect of the topic under discussion. Finally explain, casually, the purpose of microphones or one-way mirror (if used).
- ▶ The group should then be invited to discuss a general topic to warm them up to the main topics. For example, the importance of information in their work. The focus of the discussions should begin to narrow after that to build a bridge to the core topics. For example, the opinion of participants on the different sources of information which they currently use.

- The group is probably ready by now to address the core questions of the exercise. These questions may be preceded by a careful presentation of the concept behind the new product. A prototype can then be demonstrated. The participants are often then given a simple questionnaire to complete. The first question may be a five point scale where participants are asked to indicate the degree of like or dislike for the prototype. The next questions are about the reasons why they like certain aspects of it and dislike other aspects.
- After the questionnaires are completed, the moderator asks the participants to indicate, by a show of hands, the different points along the scale, where participants have marked their reaction to the prototype. The purpose is to commit participants to their views so that the dynamics of the group does not alter them afterwards. Discussions can then begin on the reasons behind the members' reactions. The moderator can then move on to present a second alternative concept and repeat the process for the first. As many concepts, as is required, can be presented in this way. However, it may be useful to limit the total to a maximum of three or four. The moderator may wish to give the group a break at this point and also provide him/herself with time to consult with the client or researcher.
- After the break the group can move towards summing-up. This final session should aim at identifying those elements which have been found to be the most attractive, and the reasons why the participants find them attractive. The group should close after discussing a final openended question: e.g. 'Has our meeting today raised anything which you consider important to the product which we have not yet discussed but which you feel we should?'

Data Collection

The proceedings of the discussions may be audio or video recorded. All the questionnaires completed by the participants during the session should also be collected. In some social

settings, mechanical recording of discussions may seriously affect the candour of views expressed. In such situations, a person may be appointed to act as the rapporteur—a secretary who is able to write short-hand will be ideal. The rapporteur should record the participants' contributions using the actual words spoken.

Data Analysis

The moderator usually writes the main report which summarises the proceedings of the group he/she has facilitated. Many believe that the presence of the client and the researcher at the group discussions is more important, and more productive than reading reports afterwards. Subtle yet crucial nuances are difficult to record on paper, but can be quickly appreciated by being present during the interaction of the group. Such nuances are particularly important for products which need to be manipulated—such as an interactive CD-ROM—because it is often the users' spontaneous reaction to the handling of the product that makes it a success or failure.

Limitations

Although this method is a very valuable tool for gathering user insights and their attitudes towards product concepts, it is limited in many other ways. Results obtained cannot be confidently projected to the user population. However, the results can be used to design other forms of research which lead to statistically reliable conclusions. It is difficult to control the quality of focus groups. Much depends on the 'right' choice of a suitable moderator to facilitate the exercise, and on the choice of the 'right' participants to form the group.

Those who intend to use this method should read Thomas L. Greenbaum's *The Practical Handbook and Guide to Focus Group Research* published by Lexington Books, Lexington, U.S.A. (1988).

Seminars and Workshops

This must be one of the oldest methods of market research for scholarly and scientific information products. Journal and series

BOX

8.10

Illustration: Focus-groups—Spare Part Catalogues

The documentalist, and head of publishing of a large motor parts stockist were asked to convert their existing 800-page spare parts catalogue into the CD-ROM format as part of the company's overall strategy to improve the order processing time—both within the company and at their customers' factories. The two were not sure which design and approach towards the organization of the catalogue data would work best with the intended users of the disc. They were also not sure if their management was right in selecting the CD-ROM format for the task. They decided to do some user research to answer these nagging questions.

The first step taken was to commission a local software customising company to create a prototype of the content format of the CD-ROM. They adapted the format of their competitor's CD-ROM catalogue in the creation of the prototype. While the prototype was being developed, they asked the Marketing Manager to help set up six groups of customers who represented the full range of establishments for which the company worked.

When the prototype was available, it was pre-tested first on a cross-section of the company employees who had to make frequent references to the catalogue in the course of their work. They all loved it and appreciated the quick search and retrieval software used. Apart from some minor changes in the wording of categories of products, no other amendments were requested.

The prototype was then pre-tested and discussed in the six focus groups of customers. Like the staff, they all loved the speed at which information could be retrieved. They also requested very minor changes in the contents. However, they all protested at the proposal to distribute the catalogue in the CD-ROM format citing the cost of having to purchase the drives. When asked to suggest a more convenient format, more than 70% suggested that it be accessed through the Internet as a web-site. Many of the customers also requested that a facility to order parts on-line be introduced together with the electronic catalogue. It turned out that most of the customers were already connected to the Internet to make use of other on-line ordering facilities offered by a number of multinational companies.

Armed with the results of the focus groups, the documentalist and head of publishing were able to convince management to drop the idea of a CD-ROM. The web-site turned out to be a big success halving the order processing time. There were also tremendous cost savings from not having to replicate copies of the catalogue, and from not having to pay for postage to deliver these copies.

BOX

8.11

Guidelines for Conducting Focus Group Discussions

1. Define objectives and anticipated outputs.
2. Select an experienced and effective moderator.
3. Create prototypes needed for presentation to the focus groups.
4. Brief moderator.
5. Select members of the focus groups.
6. Conduct the focus groups in the presence of the managers responsible for the product or service under study.
7. Moderator summarises findings of each group, as well as the overall responses of all the groups.

editors have always made it a point to attend professional meetings. Most editors usually aim at accomplishing two main tasks at these meetings: to gauge where current information interests rest, and who had the best ideas and information to offer, to meet these needs. The information is gleaned from papers presented, and the degree of interest, agreement or disagreement generated by each paper. All the editors also routinely collect names of participants at such meetings for adding to their mailing list of people who definitely have an interest in a particular subject and, therefore, are potential subscribers or customers for a particular product. This was early 'quick-and-dirty' market research.

In recent years, various agencies (especially donors) have used professional meetings in a more systematic way for designing new information products and services. These meetings, typically, involve a cross-section of the people who will use the products and those who will produce them. The agenda for such meetings will often open with one or more background papers reviewing needs, current supply or shortage of information, and potential solutions. The meeting may then break-up into a number of working groups which discuss in detail, different facets of the problem or issue. The outcome, of the working groups, will then be presented at a plenary session and further discussed

BOX
8.12***Illustration: Seminars; Workshops***

A development agency which had been supporting the sensitization of traditional birth attendants (TBAs), from two provinces, on HIV and AIDS related issues, found that they did not have a regular communication channel through which to receive further information on these issues. The agency approached a local NGO, well known for publishing handbooks for the region's rice farmers, and awarded them a grant with which to launch an HIV & AIDS Newsletter for the TBAs. The staff of the NGO did what they always did when launching a new publication. They organized meetings of the intended readership—the TBAs in this case. Two meetings were organized, one in each of the two capitals of the provinces from which the TBAs came. Both meetings were formally opened by the respective Governors of the province. The most revered abbots from the capitals' main temples were invited to bless participants, and the Regional Director of Health Services gave the keynote addresses.

The NGO then proposed the idea of the newsletter to the TBAs attending the meetings and asked them for their comments on the proposed content, format, frequency of publication, and best method of distribution of the publication. This was done by breaking-up the large meetings into small working groups comprising six people. The NGO had discovered, through experience, that people tended not to speak freely in the setting of a large meeting, but would actively contribute their ideas in smaller groups. The working groups were given four hours to collate their ideas. During this time they also had lunch together. The suggestions offered by the groups when they reconvened in the plenary sessions produced strong consensus on several points.

- The TBAs wanted the newsletter to cover all the important health issues, not just HIV and AIDS. For a start, they wanted information on jaundice in newly-borns, and post-natal complications. They complained that they lacked a good source of information on all issues, not just HIV.
- They wanted the newsletter to be heavily illustrated so that TBAs who were semi-literate would have less difficulties understanding the messages.
- All TBAs asked if it was possible for the newsletter to have a page on social matters and news related to fellow members. They saw the newsletter as a way of keeping in-touch with their peers on a regular basis.
- Where AIDS was concerned, the TBAs requested the NGO to design and print some illustrated posters on how HIV is transmitted so that they can use them as educational support materials when talking to mothers about the dangers posed by the virus. They also asked for similar posters to be produced on jaundice, diarrhoea, and other common complications if funds were available.

The donor agency, when presented with the reports of the two meetings, were convinced of the need to open-up the newsletter to all matters of concern to the TBAs. The agency also approved a supplementary grant for the production of the posters requested. The newsletter eventually developed into a lively communication vehicle of the TBAs and was eagerly awaited for and read when it arrived every two months. The newsletter has since been extended to cover an additional province adjacent to the previous two.

by all the participants. Recommendations are often then drafted, describing the need for producing various information products and the supply of the various services.

The meetings serve the same purpose as focus groups. They are particularly useful for providing insights into the needs and preferences of groups of people sharing a common interest. Because the products and services are produced with the sanction of a major professional meeting, the products and services also bear credibility and a valid mandate—very important elements when serving a specialist market.

The main drawback of this method rests with the choice of the participants of such meetings. Many professional groupings tend to be dominated by closed networks of older members who attend international meetings because they happen to be in senior management positions. These networks tend to be conservative and resistant to change. As such, seminars dominated by these elder members will not represent the preferences of the younger members, who often have very divergent views.

BOX**8.13*****Guidelines for Seminars and Workshops***

1. A reputable organization is appointed to organize the meeting.
2. Invite a cross-section of the intended user-group to attend. Give the meeting status by arranging for it to be officiated by influential and respected members of the community.
3. Provide all participants with ample opportunity and supportive environment for contributing their ideas to the gathering. Make sure all have an opportunity to be heard.
4. Summarise the main recommendations emerging out of the meeting and get the meeting to formally endorse them.

Survey Research

Survey research is the most widely used method of conducting marketing research. Survey research design refers to a design in which, the information about specified variables is collected from

a large number of specified type of respondents/situations using questioning and/or observation method. The objectives of information collection, in this kind of research, are the summary values of variables of interest and the extent and significance of the relationships (association) among two or more variables. This is quite different from the focus of indepth studies, case studies, etc., where the individual or a phenomenon is the focus of research in a holistic sense.

Design

The key elements of design are: appropriate specification of variables, design of instrument for data collection, selection of a representative sample of respondents from whom to collect information, information collection, and analysis of information.

Questionnaire

Questionnaire/instrument is a document used for collecting the information needed for the purposes of research. It essentially consists of a set of *questions*, the *response* format to record responses, *instruction* to administer, and *aids* to help in administering the questionnaire.

On any questionnaire, only those *questions* which are essential to the purposes of the research should be asked. Those which need not be asked/answered and cannot/would not be answered by respondents should not be included. Each *question* should relate to one variable. Its wording should be simple and it should not lead to any bias in the response to that, or a subsequent, question.

An important decision in phrasing a question is whether to ask a question directly or indirectly. As far as possible, the question should be asked directly. However, in some cases the respondent may not like to answer a direct question. In the latter case, an indirect way of asking the question may have to be resorted to. Response to a question may be recorded broadly in two ways, i.e., open-ended (wherein it may be noted verbatim) or closed ended (wherein the respondent ticks/checks one of a number of

categories). The response format depends on the purpose of the question and the researcher's understanding of the likely responses from the respondents. In case the likely response is not known, or the purpose of research requires obtaining a verbatim response, only an open-ended response format should be used. Closed ended questions are easy to administer and analyse and, therefore, should be used wherever possible. Categories in the closed ended questions, obviously, should be designed to cover the range of all likely responses. In addition, one category should be distinct from the other. The number of categories used and their designation/numbering should be carefully thought about so as to capture valid responses from respondents.

Most questionnaire/instruments in survey research are administered by field investigators who need to be trained and supervised. Appropriate administration of the questionnaire would require specific instruction. These could be for seeking the co-operation of the respondents in answering the questionnaire as well as in the manner of administering it. The latter could consist of, if and when needed, ways of asking questions, manner of recording responses, instructions to skip certain questions depending on the response to some earlier questions, administering a certain portion of the questionnaire to only certain respondents, etc. In addition, for easy and quick understanding of questions and response formats, investigators could be provided with certain aids. For example, if responses are sought to a product concept, it could be depicted in a potential form or may be as a working model. This would help the respondent in understanding the concept better and thus lead to valid responses. Similarly, response formats could be carried on separate cards for easy understanding and quick response.

The questionnaire should be thoroughly tested for any bugs before releasing it for large-scale administration. Besides testing each of the questions and their response format, it is necessary to assess the appropriateness of instructions, sequence of questions, and the overall length (time) of the instrument to avoid bias and/or non-response. While testing could be done by experts, it is

always better to test the questionnaire on a small number (around 5) of different types of potential respondents.

Sampling

Sampling or selection of respondents involves three decisions. The first is the definition of who is the sample respondent (called sampling unit). Definition of sampling unit generally forms a part of the problem definition stage. The other two decisions are of sample size and sampling procedure for selecting actual respondents. Depending on a definition of sampling unit, a list of all possible respondents may have to be generated or obtained from published sources (called sampling frame). Sample size is related to the level of accuracy desired in the results. Larger the sample size, higher would be the reliability of results. Also, higher the level of variation among the respondent population, larger the sample size needed. Ideally, a sample of one is enough, if all the respondents are likely to respond exactly in the same way. For economizing on efforts and costs, in a situation where a higher level of variation is expected in the responses, the potential respondents (population) may be divided into groups so that the variation in each group is less. Usually 20 to 30 respondents per such uniform grouping may provide reasonable results.

Sampling procedure is devised to ensure an appropriate representation of all the potential respondents. There are two kinds of sampling procedures: probabilistic and non-probabilistic. Probabilistic procedures are used if you need an assessment of the extent of error in your results. Three useful probabilistic sampling procedures are simple random sampling, stratified random sampling and cluster sampling. However, these procedures require preparation of appropriate lists of clusters/strata, and within the cluster/strata a list of all the respondents (sampling frame), which may be quite costly to prepare in terms of both, time and money. Purposes of most market research studies may be served, just as well, by non-probabilistic procedures. Two of the important non-probabilistic sampling procedures are judgmental sampling and quota sampling. In judgmental sampling you choose those members of the

respondent population who are likely to provide accurate information and who could fairly represent the potential respondents. In quota sampling you divide the respondent population into several categories. The categories are made on the basis of assessments of having more similar reaction patterns from the respondents within a category and differing reaction patterns across categories. A specified number of respondents are then sampled in each category. The procedure within the category could be judgmental, as described above.

Information Collection

Information collection could be through a variety of contact methods. The most frequently used ones are personal interviewing, mail questionnaire, and telephone interviewing. Personal interviewing, is used the most. Besides being most costly, it requires detailed planning of field work, training of field staff, and supervision. However, it is most versatile in clarifying questions in case of difficulty, and observing non-verbal responses. Use of the other two contact methods would depend on the availability of mailing lists and telephone numbers of the respondent population. In case of mailed questionnaire surveys, the response rate (receipt of filled up questionnaire as a percentages of the total questionnaires mailed) could be quite low. However, a response rate of 20% could be considered excellent. For improving the response rate, researchers could use some inducements. However, the inducements should be such that they do not lead to distortion in responses.

Data Analysis

The purpose of survey research and, therefore, of data analysis, is to obtain summary values of some variables among the target respondents, as well as obtain the extent and significance of relationship among two or more variables. Steps in data analysis consist of preparing the data for analysis (data preparation), summarising the data (data summary), selection of appropriate techniques of data analysis, and obtaining results.

In data preparation, filled up questionnaires are first edited so that only the valid ones are used in further analysis. If necessary, responses to open-ended questions are categorised into appropriate categories. A code book is then prepared which consists of the list of all the variables and their respective categories of responses. Finally, a master table is prepared which provides the categorised response to each variable, for each respondent. This is a table in which each line may represent a respondent, each column may represent a variable and the value of the response on each variable is recorded in the specific cell.

The next step in data analysis is summarising the data. This step consists of finding representative values of each variable, for all the respondents. Two summary values are needed. One is the 'average value' for the group and the other is variation of the value across the sample respondents.

The measures of average value and variation depend on the scale on which each variable is measured. In case, the response is only a (a number of categories) nominal scale, a representative value is that category which has the maximum number (or percentage) of responses (called mode). Variation would be expressed as percentage of responses in different categories. In case of quantitative data (interval or ratio scale) arithmetic mean would provide the mean value, and standard deviation² would provide the variation in responses. Higher the value of standard deviation in relation to the mean, higher the variation in the responses and vice versa.

The steps of choosing appropriate data analysis techniques and actually carrying out the data analysis could vary from preparation of very simple tables to most sophisticated statistical analysis. Use of sophisticated statistical techniques requires specialised training which librarians/information centre managers may not have. In such situation, help of specialists may be sought. However, librarian/information centre manager should

2. Standard deviation is a statistics term. Reader should consult any book on statistics to understand it.

be able to do two things. First, he should be able to understand the objective of his research and identify those variables which need to be analysed for achieving the objectives. Secondly, he should be able to conduct simple analysis which, in most cases, could provide very important insights and in many cases may be sufficient to achieve the objectives of research. For example, suppose a librarian is testing a new product on a set of representative respondents, consisting of several groups of target customers. His major purpose is to find likely purchasers/non-purchasers of the product and the reasons thereof. For these purposes, the research may have two questions. One obtains the response for buying the product in terms of Yes/No. The second asks for the reasons for such a response. It is easy to visualise that a simple table containing number of respondents saying yes and no, for each group of target respondents, could be prepared. The number could be converted into a percentage, i.e., respondents saying yes as a percentage of respondents in each of the target groups separately. This analysis would easily show whether the likely purchase differ across different groups. For obtaining the reasons of purchase/non-purchase, you could make another table depicting number of respondents saying Yes (No) and the number citing a specific reason for saying Yes (No). You could then calculate the percentage of those saying Yes (No) who mentioned a specific reason for buying (not buying). The reason having higher percentage response could be a more important reason for purchase (non-purchase). You could combine all the reasons and try to judge whether there are some underlying reasons for such responses (a technique called factor analysis could be used by a specialist for this purpose). You could also find the characteristics/profile of respondents who said Yes vs. No and judge what distinguished them (a technique called discriminate analysis could be used by a specialist for this purpose).

As you would notice above, only the specialists use higher level/sophisticated techniques for analysing data. However, simple analysis could be used by the librarian for his own understanding and for interpreting the analysis by the specialist.

Illustration

Please see the case study, Marketing Research for Asian CD-ROM on Health and Environment, Parts I, II, III and IV, for illustrating various aspects of survey research methodology.

BOX
8.14
Guidelines for Steps in Survey Research
Instrument Preparation

- Review problem definition
- Assess each variable and decide whether the information could be collected through direct/indirect question.
- Assess whether you understand the likely responses to a question fully and then decide whether to get the response to the question in an open ended format (as description to be noted verbatim) or in a closed ended format (depicting all possible responses as categories).
- Decide whether the question should be asked directly or indirectly.
- Decide on question wording which is simple, easily understood, not having two meanings, not introducing bias in response etc. so as to get valid response.
- Decide the response format being open-ended/closed ended. If closed ended, decide response categories. You might like to word response categories appropriately to elicit valid response.
- Decide on the instructions to be given to the person administering the questionnaire/instrument. Some illustrative aspects are:
 - Introduction to the research/instrument in terms of its purpose, request for help, assurance of maintaining anonymity of respondent's responses, and offer/compensation for co-operation if something is planned. The field investigator/respondent (in case of self-administered questionnaire) needs to have clear understanding of these aspects.
 - The manner of asking question/s and how to record responses.
 - Skipping questions depending on the nature of response, if needed.
 - Additional help to investigator in terms of cards depicting specific questions or response formats for easy response by the respondent.
 - Product/service/promotion description/prototype to which response is needed.
 - Manner to terminating the interview.

(Contd)

- Check sequence of questions to reflect the manner/flow in which the respondent is likely to have the information and would find the flow helpful in recalling unbiased response.
- Check whether the total time required for administering the instrument would be possible to be spent by the respondent. Make appropriate changes in the instrument to shorten it, if it is too long.
- Check whether the responses to all the questions put together would be able to resolve the decision/research problems identified by you.
- Test the instrument on few representative respondents for validity and revise.

Sample Size and Composition

- Divide the potential respondents into groups which are homogeneous within and heterogeneous across with regard to the most critical variable of interest in the study say level of demand.
- Identify lists, available from secondary sources which represent potential respondents, for drawing the list of sample respondents.
- Select one or generate a new one by combining more than one lists so that it does properly represent the potential respondents. The final lists should have lowest under-representation of different types of respondent groups.
- In case lists are not available, there may be need to generate one through primary efforts (field work).
- A sample size of about 20 to 30 per such group could be taken to assure adequate sample size of statistical analysis.
- From the list each group generated above, select 20-30 respondents at random, through generating random numbers on computer or random number tables.

Field Work

- Adequate training is required to the interviewer so as to properly administer the instrument and to select the appropriate sample.
- Field supervisor to call-back on respondents interviewed by interviewers to check fraudulent practices.
- Supervisor to check a sample of instruments at the end of each day to make sure the investigators are performing their duties satisfactorily.

Analysis

- Prepare the data for analysis through editing the responses in the instruments for correct filling; provide codes to non-coded responses to openended questions (coding), prepare the description of codes used for each question (preparation of code book) and prepare a master data sheet in which responses of each respondent to each question are put in a coded manner (master table).

(Contd)

- Understand each research question and research objective, identify respective relevant variables from the master table, and understand whether the response is categorical or continuous.
- Conduct summary analysis. This would mean that for each variable identified above, estimate a value representing the response of the group as a whole (like mean value) and a measure which represents variation in the group (like standard deviation).
- Understand research objectives, and identify variables whose analysis is required for achieving the research objectives. Devise tables/simple analysis methods for the purpose. If there are too many variables to take care for each objectives separately you might like to seek help of a specialist.

Experimental Research Designs

An experiment may be defined as the actual trial of an alternative course of action for objectively observing (measuring) its effects. From the point of view of decision making, this design comes closest to the ideal for evaluating the effects of alternative courses of action. The design is also causative, as the effects of other variables (other than the alternative being tested) are controlled or isolated to get the true effects of the alternative being tested. Therefore, whenever and wherever feasible, such a design should be used in causative studies in marketing.

The basic process of experimentation requires:

- Specification of the alternative course(s) of action to be tested and the measures of effects.
- Selection of representative sample(s) of target segment depending on the specific experimental research design.
- Expose the group(s) to the alternative course(s) of action.
- Conduct data analysis to isolate the effects of alternative course(s) of action.

Specification of alternative courses of action implies the specification of a number of variables to be tested, and their specific values. For example, in case of a new product decision there may be only one new product which has to be tested. In another situation, price and product may be the two variables,

each having two values (price A, price B, and product C, product D). The researcher might also wish to find out the interactive effect between the two variables. Measurements need to be taken of both the effects (outcome) as well as the uncontrollable variables in the design itself, so that the effects of experimental variables could be isolated.

In the situation of library information products and services, some very simple designs could help a great deal in fine tuning the marketing decisions. For example, a new product could be tested on a representative sample of respondents. The product could be given for trial/use. Adequate time may be allowed to the respondent for the use of the product. Reaction of respondents can then be obtained on requisite parameters. Such stand-alone experiments on promotion, price, and products could be easily conducted and managed by librarians. Librarian/manager of information centre should use expert help if several variables need to be tested simultaneously.

Experimental designs are the most complicated, costly, and time consuming ones, and are also poor on secrecy. However, if adequate care has been taken to have valid and reliable measures, the results could be high on validity and reliability.



SUMMARY AND CONCLUSIONS

- Marketing research is an important function for the marketing of information products and services. The importance arises from both, the lack of understanding of marketing as well as the lack of knowledge and skills about marketing research on the part of librarian/information managers.
- Marketing research consists of the following steps: defining the purpose of research and the problem definition, developing a research plan (consisting of one or more studies with their own research objectives, data collection

approaches, sampling plan and data analysis), executing the research plan, and interpreting the results for purposes of developing marketing strategies/action plans.

- Marketing research is best conducted by an independent research agency to avoid any biases. However, the librarian/manager (a client) would have a major responsibility in deciding the purpose of research, in selecting the research agency and appraising the research plan, and finally, in interpreting and using the results. The librarian, therefore, must be familiar with basic concepts of research.
- 'Backward market research' could be used quite effectively in defining the purpose of research and for involving the staff in it. Bayesian decision approach could be used for assessing the value of research and hence, deciding the upper limit of the budget for research.
- The chapter described the contents of a research plan and the criteria to be used for deciding research designs and data collection approaches. It also provided a brief description of some widely used research designs. However, these descriptions, at best, would familiarise the librarian with this vast field of study. Use of some of the sophisticated research methods like focus group discussion, large-scale surveys, and experiments for making strategic decisions may be left to specialist agencies till the librarians gain requisite insights.
- Additional references at the end of the guide could be utilised for improving the understanding of this field.

REFERENCES

1. Andreasen, 'Backward Market Research', *HBR*, May-June 1985.
2. Boyd, Harper W., Werfall, Ralph, and Stasch, Stanley, *Marketing Research: Text and Cases*, Richard D. Irwin, Inc., Homewood, Illinois, 1989.
3. Churchill, Gilbert A., *Marketing Research: Methodological Formulation*, The Dryden Press, Chicago, 1991.

4. Green, Paul E., Jull, Donald S. and Albaum, Gerald, *Research for Marketing Decisions*, Prentice-Hall of India Private Limited, New Delhi, 1995.
5. Greenbaum, Thomas L., *The Handbook for Focus Group Research*, Lexington Books, New York, 1993.
6. Jain, Abhinandan K. *et al.*, *Marketing of Information Products and Services*, Indian Institute of Management, Ahmedabad, 1995.
7. Kotler, Philip, 'Marketing Information System and Marketing Research', in *Marketing Management* (8th Ed).