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Marketing Research, Methods and Tools

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1. Introduction

The main purpose of this presentation is to overview the Principles and Methods related to Marketing Research (MR), followed by Research Project Implementation, Interpretation of Findings and Drawing up of a Typical Research Report.

Subsequently, this paper will address the Parts of a Typical Marketing Research Proposal for future studies.

2. Definition of Research and the Research Process

Scientific Research can be defined, simply as “The Specification of a problem”, “Gathering, analyzing and interpreting information related with the specified problem and reporting the findings to the interested people. Thus, regarding this definition, in any scientific research, the researcher must follow the typical Research Process provided below.

3. Marketing Research and Marketing Research Process

With the same logic, Marketing Research (MR) rather briefly refers to all types of Research activities conducted in the field of marketing within the similar process. Meanwhile the American Marketing Association defines MR, “as the function which links the consumer, customer and public to the marketer through information that is used to identify and define marketing opportunities and problems; refine and evaluate marketing actions, monitor marketing performance and improve understanding of marketing as a process”. MR specifies the information related to these issues, designs the methods for collecting information, manages and implements the data collection process, analyzes the data and derives the results and finally communicates the findings and their implications (CHURCHILL, 1995, p.10).

There are important elements in this definition. MR deals with all phases of both goods and services marketing. It involves the application of research techniques to the solution of marketing problems of any sort, be they planning, problem-solving, or control issues. The definition indicates that MR links the organization with its market environment.

In addition to its role in the actual collection of data and their analysis, it plays an important role for the implications of what the collected information suggests. Therefore for MR to be effective it should be relevant, timely, efficient, accurate and ethical (AAKER, et al, 1999, p.19).

Shortly, Market RESEARCH examines the product(s), the consumers, prices and conditions of price determination, the market place, market structure and market size. *Market Research* involves the investigation and identification of sales conditions and the potential of a *given product*, in relation to a given profile of consumers, in a defined area.

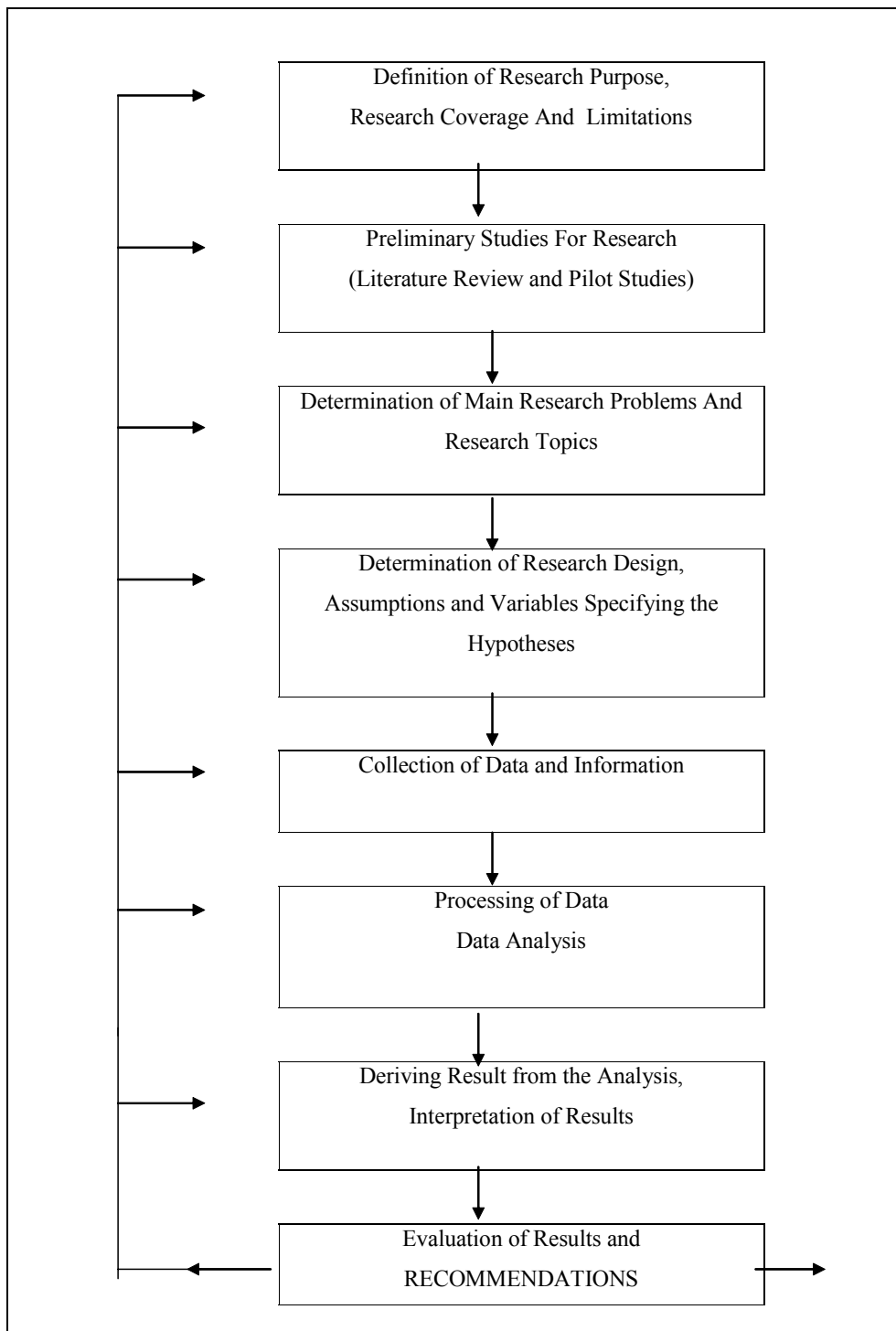


Figure 1. The typical research process

MR, on the other hand, involves the determination of the marketing strategy to enter the *market that had been previously examined*. We have to establish a marketing policy based, on the information collected in market research. For example,

- What will be the prices of our products?
- How shall we organise marketing channels?
- What marketing policies are followed by marketing?

These questions could be answered by the marketing policy. Meanwhile, in most cases market and marketing research are interrelated and being used interchangeably (ERKAN,1994).

Indeed, MR displays great importance throughout the entire marketing process and more particularly in the marketing management process(Figure 2).

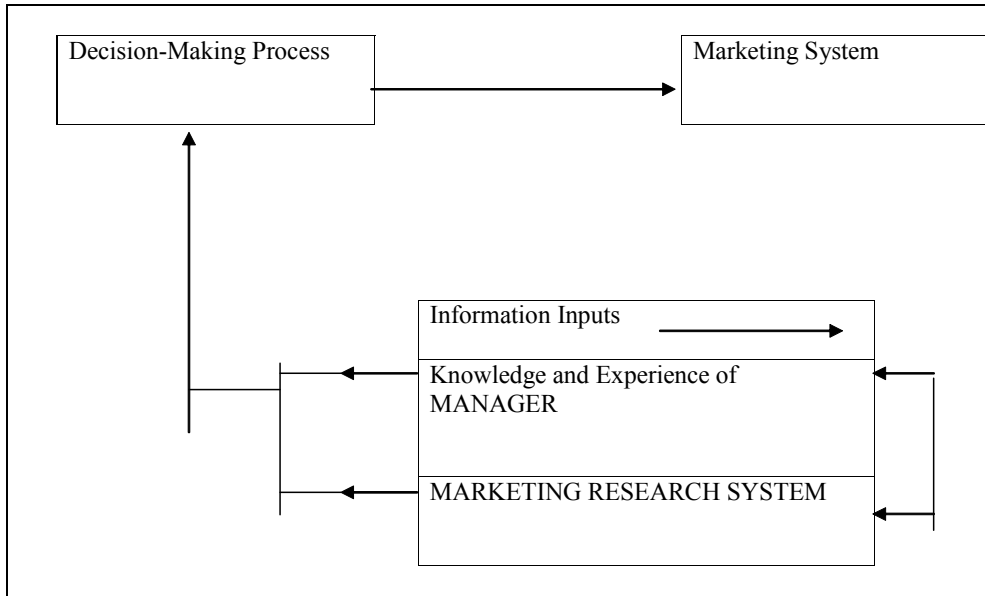


Figure 2. Marketing Management Process
Source: Kinnear and Taylor, 1996, p.17.

If we compare marketing to a long TRAIN with multiple compartments, the MR would justly claim the dual roles of the engine that powers the train and the links that connect the individual compartments to form a cohesive functional unit. In other words, MR is pervasive, The BRAIN and the BRAWN of any marketing organisation(AAKER, et all, 1999).

In order to address all the issues or functions noted above, all the data must first be systematically gathered, recorded and analysed; secondly, through the interpretation of these data one should prepare the Research Report. These tasks are logically viewed as a sequence called the MARKETING RESEARCH PROCESS, which consists of the following steps:

1. FORMULATE THE PROBLEM
2. DETERMINE RESEARCH DESIGN AND DATA SOURCES
3. DESIGN DATA COLLECTION METHODS AND FORMS
4. DESIGN SAMPLE AND COLLECT DATA
5. ANALYZE AND INTERPRET DATA
6. PREPARE THE RESEARCH REPORT

Although, these steps usually occur in this general order, the development of research purpose that links the research to decision-making, and the formulation of research objectives that serves to guide the research, are unquestionably the most important steps in the research process.

If the steps taken are correct, the research stands a good chance of being both useful and appropriate. If they are bypassed or wrong, the research will then almost surely be wasteful and irrelevant.

Therefore, these aspects of MR will be considered below, in order to explain the process in as much detail as possible. The steps listed here, of course, are interrelated with each other.

Table 1. Kinds of Questions Addressed by Marketing Research

I. Planning	<ul style="list-style-type: none"> a. What kinds of people buy our products? Where do they live? How much do they earn? How many of them are there? b. Are the markets for our products increasing or decreasing? Are there promising markets that we have not, yet reached? c. Are the channels of distribution for our products changing? Are new types of marketing institutions likely to evolve?
II. Problem Solving	<ul style="list-style-type: none"> a. Product <ul style="list-style-type: none"> 1. Which of various product designs is likely to be the most successful? 2. What kind of packaging should we use? b. Price <ul style="list-style-type: none"> 1. What price should we charge for our products? 2. As production costs decline, should we lower our prices or try to develop higher quality products? c. Place <ul style="list-style-type: none"> 1. Where, and by whom, should our products be sold? 2. What kinds of incentives should we offer the trade to push our products? d. Promotion <ul style="list-style-type: none"> 1. How much should we spend on promotion? How should it be allocated to products and to geographic areas? 2. What combination of media - newspapers, radio, television, magazines - should we use?
III. Control	<ul style="list-style-type: none"> a. What is our market share overall? In each geographic area? By each customer type? b. Are customers satisfied with our products? How is our record for service? Are there many returns? c. How does the public perceive our company? What is our reputation with the trade?

Source: CHURCHILL, 1995, P.9.

Let us look at each step very briefly. In fact, each step involves numerous issues rather than a single decision. Table 2 lists some typical questions that inevitably come about in each stage.

4. General Principles of Marketing Research

One of the more valuable roles that MR can play is to determine the definition of the problem to be solved. Only when the problem is carefully and precisely defined, can research be designed to provide pertinent information. Part of the process of problem definition includes specifying the objectives of the research project that might be undertaken. Each project should have one or more objectives.

“A problem well defined is half-solved”, this is especially true in MR, for it is only when the problem has been clearly defined and the objectives of research precisely stated that research can be designed properly (CHURCHILL, 1995, p.87).

Table 2. Typical questions which need resolving in each stage

Stage in the Process	Typical Questions
Formulate problem	<p>What is the purpose of the study - to solve a problem? Identify an opportunity?</p> <p>Is additional background information necessary?</p> <p>What information is needed to make the decision?</p> <p>How will the information be used?</p> <p>Should research be conducted?</p>
Determine research design	<p>How much is already known?</p> <p>Can a hypothesis be formulated?</p> <p>What types of questions need to be answered?</p> <p>What type of study will best address the research questions?</p>
Determine data collection method and forms	<p>Can existing data be used to advantage?</p> <p>What is to be measured? How?</p> <p>What is the source of the data ?</p> <p>Are there any cultural factors that need to be taken into account in designing the data-collection method? What are they?</p> <p>Are there any legal restrictions on the collection methods? What are they?</p> <p>Can objective answers be obtained by asking people?</p> <p>How should people be questioned?</p> <p>Should the questionnaires be administered in person, over the:-phone, or through the mail?</p> <p>What specific behaviours should the observers record?</p> <p>Should electronic or mechanical means be used to make the observations?</p> <p>Should structure or unstructured items be used to- collect the data?</p> <p>Should the purpose of the study be made known to the respondents?</p> <p>Should rating scales be used in the questionnaires?</p>
Design sample and collect the data	<p>What is the target population?</p> <p>Is a list of population elements available?</p> <p>Is a sample necessary?</p> <p>Is a probability sample desirable?</p> <p>How large should the sample be?</p> <p>How should the sample be selected?</p> <p>Who will gather the data?</p> <p>How long will the data gathering take?</p> <p>How much supervision is needed?</p> <p>What operational procedures will be followed?</p> <p>What methods will be used to ensure the quality of the data collected?</p>
Analyze and interpret the data	<p>Who will handle the editing of the data?</p> <p>How will the data be coded?</p> <p>Who will supervise the coding?</p> <p>Will computer or hand tabulation be used?</p> <p>What tabulations are called for?</p> <p>What analysis techniques will be used?</p>
Prepare the research report	<p>Who will read the report?</p> <p>What is their technical level of sophistication?</p> <p>Are managerial recommendations called for?</p> <p>What will be the format of the written report?</p> <p>Is an oral report necessary?</p> <p>How should the oral report be structured?</p>

Source: CHURCHILL, 1995, P.85.

Research Design is simply the framework for a study used to guide in collecting and analyzing data. The source of information for a study and the research design go hand in hand. They both depend on how much is known about the problem.

If relatively little is known about the phenomenon to be investigated, EXPLORATORY research will be warranted.

If, on the other hand, the problem is precisely and unambiguously formulated, DESCRIPTIVE OR CAUSAL research is needed. In this research design, data collection is not flexible but is rigidly specified, with respect to both data collection forms and the sample design.

The research designer has a wide variety of research methods to consider, either independently or in combination. They can be grouped first, according to whether secondary or primary sources of data are used.

Secondary data are already available, because they were ready or collected for some other purposes.

Primary data are collected to address a specific objective. A researcher who cannot find the data needed in secondary sources, resort to primary data collection.

The types of data of interest to marketing research include:

- Demographic/Socio Economic Characteristic,
- Psychological/Life-Style, Attitudes/Opinions,
- Awareness /Knowledge, Intentions/Motivations,
- Behaviour Of Individual Or Groups

(CHURCHILL, 1995, P.392).

FOR PRIMARY DATA COLLECTION, Survey (Communication) methods could be used in different ways, such as Personal or Group INTERVIEWS, telephone and MAIL SURVEYS. In addition to that, OBSERVATIONS may also be used for primary data collection (CHURCHILL, 1995, p.349).

EXPERIMENTS are, also, designed in various forms like Latin Square, Split Runs, Factorial Design, Difference Tests and other forms (ERKAN, 1994). Experiments are the best means we have for making inferences about cause and effect relationships, because, if designed properly; they provide the most compelling evidence about concomitant variation, time order of occurrence of variables, and elimination of other factors. A key feature of experiment is that research is able to control some factors. Because the emphasis is on testing a specific relationship, causal design demands a clear specification of what is to be and how it is to be measured. Structural data collection instruments should be used, experiments could also use observational mode of data collection (CHURCHILL, 1995, p.1116).

Some points regarding the marketing Research Design Process still need some more explanation and they are provided below.

EXPLORATORY RESEARCH is used when one is seeking insights into the general nature of a problem, the possible decision alternatives, and relevant variables that need to be considered. Typically, there is little prior knowledge on which to build the research methods which are highly flexible, unstructured and qualitative. Exploratory research is also useful for establishing priorities among research questions and for learning about practical problems of carrying out the research. Studies may involve reviewing published data, interviewing people, conducting

focus groups, investigating literature. This type of research can be applied to any problem for which little is known. The output of an exploratory study will not be answered but more specific questions or statements of tentative relationships will be addressed. A survey of literature and analysis of selected cases can also be used to advantage in exploratory research.

QUALITATIVE RESEARCH is usually exploratory and diagnostic, then the research designed primarily for exploratory purposes, such as getting oriented to the range and complexity of consumer activity, clarifying the problem and identifying likely methodological problems. Examples are individual or group interviews, case studies, projective techniques (AAKER, et al, 1999, p.763).

DESCRIPTIVE RESEARCH embraces a large proportion of MR. The purpose is to provide an accurate picture of some aspects of marketing environment. In descriptive research hypotheses often will exist, but they may be tentative and speculative. In general, the relationships studied will not be causal in nature. However, they may still have utility in prediction. They generally employ a structured questionnaire and the emphasis is on generating an accurate picture of relationships between and among variables. Descriptive studies typically rely heavily on crosstabulation analysis or other means of investigating the association among variables, such as Regression Analysis. The great majority of Descriptive studies are cross-sectional, although some use longitudinal information (CHURCHILL, 1995, p.1116).

CAUSAL RESEARCH When it is necessary to show that one variable causes or determines the values of other variables, a causal research approach must be used. Evidence of a relationship or an association among the variables is useful; otherwise, we would have no basis for even inferring that causality might be present. To go beyond this inference we must have reasonable proof that one variable preceded the other and that there were no other causal factor that could have accounted for the relationship. Because the requirements for proof of causality are so demanding, the research question and relevant hypotheses are very specific (AAKER, et al, 1999, pp. 73-78).

Let us provide an example for each them, in the following table:

		<i>Research Questions</i>
<i>Exploratory Research</i>	What new products should be developed?	What alternative ways are there to provide launches for the participant?
<i>Descriptive Research</i>	How should a new product be distributed?	Where do people buy similar products?
<i>Causal Research</i>	Will an increase in service staff be profitable?	What is the relationship between size of service staff and revenue?

Now let us turn and discuss the development of the hypothesis since this is a very important step in the process

A hypothesis is a possible answer to a research question. The researcher should always take the time and effort to speculate on possible research questions and answers that will emerge from the research. Normally, there will be several competing hypotheses, either specified or implied. If all the hypotheses were known in advance to be true, there would be little reason to conduct the research. Thus, one objective of research is to choose among the possible hypotheses. The process of hypothesis development is depicted in Figure 3.

When a decision is made to conduct a QUESTIONNAIRE type research or acquiring a sample for primary data collection, a number of factors must be taken into consideration. The various

steps involved in questionnaire design and in the sampling process, respectively are provided below (Figure 4).

Question wording and order, sequencing and layout decision, question content and checking the questionnaire are the important steps.

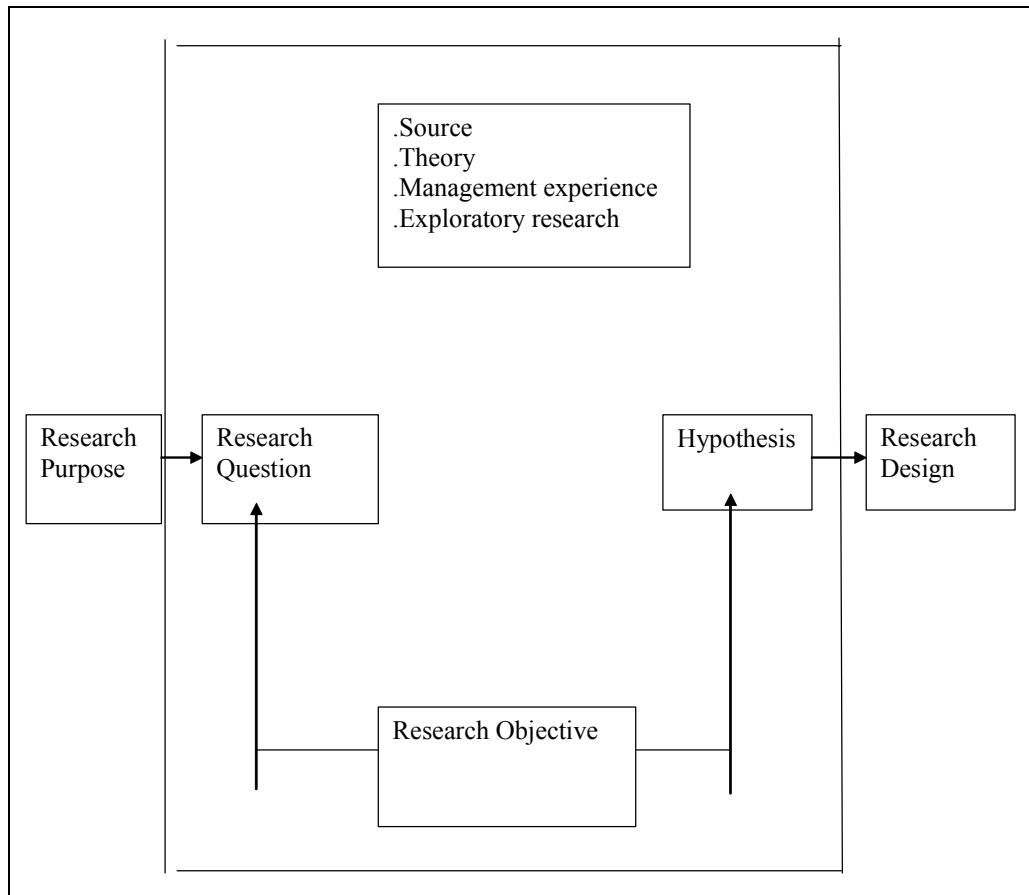


Figure 3. Process of Hypotheses Development

Source: AAKER, et al., 1999, P. 52.

On the other hand, the use of personnel to collect data raises a host of questions with respect to selection, training and supervision or control of the FIELD-STAFF questions that must be anticipated in designing research.

Major Steps in the Sampling Process are:

1. Identifying the target population
2. Determining the sample frame
3. Resolving the differences
4. Selecting a sample procedure
5. Determining the relevant sample size
6. Obtaining information from respondents
7. Generating the information for Decision-Making Process

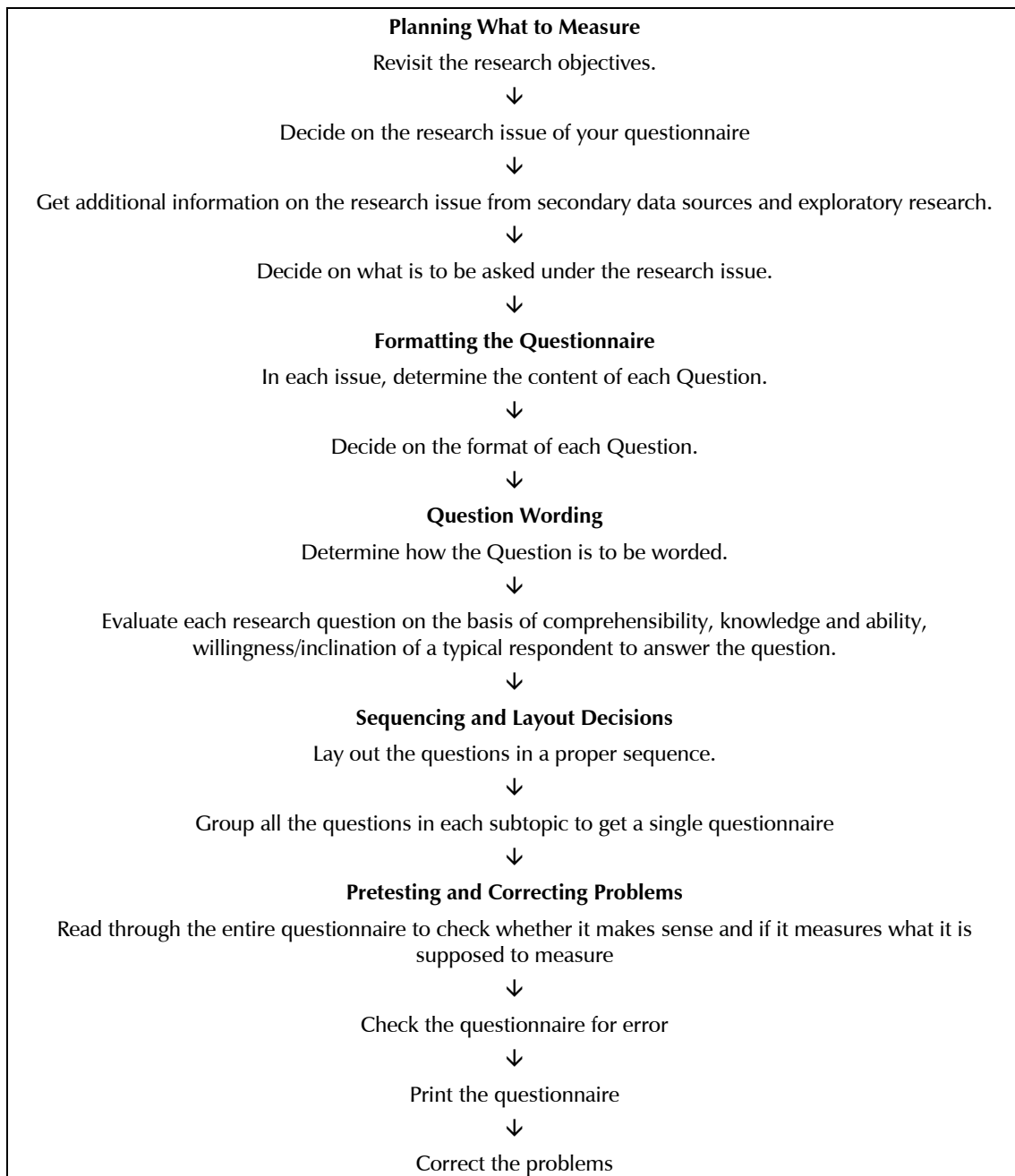


Figure 4. The Process of Questionnaire Design

Source: AAKER, et al, 1999, P.307

Surveys can be designed to capture a wide variety of information, generally, through the interview. Respondents have been selected by using different sampling methods. However, the problems of getting meaningful results from the interview process stem from the need to reasonably satisfy the following conditions:

- Population has been defined correctly
- Sample is representative of the population
- Respondents to be interviewed are available and willing to cooperate.
- Respondents understand the question

- Respondents have the knowledge, opinions, attitudes or facts required.
- Respondents are willing and able to respond.
- Interviewer understands and records the responses correctly

However, those conditions often are not satisfied because of interviewer error, ambiguous interpretation of both questions and answers, and errors in formulating responses.

The researcher may amass a mountain of data, but these data are useless unless the findings are analyzed and the results interpreted in the light of the problem at hand.

Data analysis generally involves the coding and editing of data, tabulation and statistical analysis and interpretation of the results.

Data Analysis in MR has been conducted for finding the basic statistical parameters from the data, and for examinations among the variables.

Statistical tests applied to the data, if any, are somewhat unique to the particular data collection instruments used in the research. Those tests should be anticipated before data collection is begun, if possible, to assure that the data and analysis will be appropriate to the problem as specified (CHURCHILL, 1995, P.84).

One useful classification of these considerations is that the appropriate techniques depend on the type of data, the research design, and the assumptions underlying the test statistics and its related consideration, the power of the test.

The statistical techniques can be broadly classified as UNIVARIATE and MULTIVARIATE techniques, based on the nature of the problem.

UNIVARIATE techniques are appropriate when there is a single measurement of each of the sample objects, or when there is several measurement of each of the observations, but each variable is analyzed in isolation.

On the other hand, MULTIVARIATE techniques are appropriate for analyzing data when there are two or more measurements of each observation and variables are to be analyzed simultaneously.

Multiple Regressions, Discriminat Analysis, Variance Analysis for Multiple Dependent Variables, Canonical Correlation, Factor Analysis, Cluster Analysis, e.q are typical examples of multivariate techniques.

On the other hand, CHI-SQUARE, T TEST, Z TEST for two or more samples and analysis of variance is included in Univariate techniques (AAKER, et all., 1999, p.454-457).

Detailed explanations of these techniques will not be provided, but interested participants could easily reach these details within the related literature (see CHURCHILL, 1995, and AAKER, et all., 1999, Part III, Chapter 14-17).

Nowadays, a large number of variables can be studied simultaneously using computer techniques. By means of such techniques as computer simulation, it is possible to simulate and analyze the operation of extremely complex systems (ERKAN, 1994).

Writing the RESEARCH REPORT is the final step or is the end of the journey. The research report is the document submitted to management or to the public and it summarizes the research results and conclusions. It is all that many executives will see of the research report, and it be-

comes the standard by which that research is judged. Thus, it is imperative that the research report be COMPLETE, ACCURATE, CLEAR and CONCISE.

Two types of reports may be presented; either a GENERAL/EXECUTIVE Report, which only provides the findings for use of those who are primarily interested in the results; or a TECHNICAL (SCIENTIFIC) report, giving all the scientific details about the research.

The report must tell readers what they need and wish to know. Typically, EXECUTIVES are interested in results and must be convinced of the usefulness of the findings. Whereas, the technical sophistication of the readers determines their capacity for understanding methodological decisions, such as research designs, sampling plan, analysis techniques and so on. The readers' capacity establishes the technical upper limit of the report, while their interest, circumstances, and intended use restrict its level.

Thus, the audience determines the type of report. Researchers must make every effort to acquaint themselves with the specific preferences of their audiences.

Therefore, there is no single, acceptable organization for a REPORT. The following FORMAT is flexible enough to allow the inclusion or exclusion of elements to satisfy particular needs.

1. TITLE PAGE
2. TABLE of CONTENTS
3. SUMMARY (EXECUTIVE SUMMARY)
 - 3.1. Introduction
 - 3.2. Results
 - 3.3. Conclusion
 - 3.4. Recommendations
4. INTRODUCTION
 - 4.1. Purpose
5. MAIN TEXT (BODY of the REPORT)
 - 5.1. Methodology
 - 5.2. Results
 - 5.3. Limitations
6. CONCLUSION AND RECOMMENDATIONS
7. APPENDIX
 - 7.1. Copies of Data Collection Forms
 - 7.2. Detailed Calculations Supporting Sample Size, Test Statistics, and so on.
 - 7.3. Tables and Figures not included in the body
8. BIBLIOGRAPHY

The Summary (Executive Summary) is the most important part of the report. It is its Heart and CORE. Many executives will read only the summary. The true summary is not an abstract of the whole report in which everything is restated in condensed form. A good summary contains the necessary background information, as well as the important results and conclusions. The results presented in the summary must agree, of course, with those in the body of the report, but only the key findings should be presented here. It is useful to include one or several findings to each

problem or objective. Conclusion is an opinion based on the results, whereas RECOMMENDATIONS show indicated actions for future.

The main text is followed by the CONCLUSION and RECOMMENDATIONS sections where the writer shows step by step the development of the conclusions and states them in great detail.

There should be a CONCLUSION for each study objective or problem. Readers should be able to read the objectives, turn to the conclusion section, and find specific conclusions relative to each objective.

Researchers' RECOMMENDATIONS should follow the conclusion. In the development of recommendations, researchers need to interpret all the information in terms of what it means for the business or for the related bodies. One of the best way of doing this is by offering specific recommendations as the appropriate course of action (CHURCHILL, 1995, P.1094).

The next step is, of course, FOLLOW UP THE STUDY. That is, implementation of findings and recommendations for reaching the solutions of the problem investigated.

5. Parts of a Typical Marketing Research Proposal

Before finishing the Presentation, it was thought that it would be useful to give parts of a typical MR proposal for your future studies.

Table 3. Parts of a Typical Research Proposal

1.	TENTATIVE PROJECT TITLE
2.	STATEMENT OF THE MARKETING PROBLEM This is a brief statement that outlines the problem under consideration, its brevity gives the reader a general sense of the reason for a project.
3.	PURPOSE AND LIMITS OF THE PROJECT Time limitation Money limitation Data limitation
4.	DATA, DATA SOURCES AND RESEARCH METHODOLOGY 4.1 Methods for Data Collection 4.2 Methods for Data Analysis
5.	ESTIMATE OF TIME AND PERSONNEL REQUIREMENTS
6.	COST ESTIMATES
7.	PROJECT ORGANISATION AND IMPLEMENTATION
8.	TENTATIVE OUTLINE OF THE RESEARCH REPORT

(CHURCHILL, 1995, p.164 | SIKLI, 1992)

A research proposal can take many forms. Some will be very long and detailed, running 20 pages or more, others will be short. Much depends on the detail with which the various parts are described.

Table 3 Contains a SAMPLE FORM that can be followed in preparing a research proposal or plan.

6. Conclusion

In the Conclusion, MR has great functions and importance throughout the entire marketing process of either goods and services and more particularly, in Marketing Management.

Therefore, of course it applies to all phases of Marketing for ORGANIC PRODUCTS as well. So the conducting of RELEVANT, TIMELY, EFFICIENT, ACCURATE and ETHICAL Marketing Research studied in this field would encourage the economics of organic products both at the national and international levels.

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