**LEARNER GUIDE**

**Monitor marketing information flow and collect and process marketing data**

Unit Standard 252204

Level 4 Credits 4

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PERSONAL INFORMATION

|  |  |
| --- | --- |
| **NAME** |  |
| **CONTACT ADDRESS** |  |
|  |
| **Code** |  |
| **Telephone (H)** |  |
| **Telephone (W)** |  |
| **Cellular** |  |
| **Learner Number** |  |
| **Identity Number** |  |
|  |
| **EMPLOYER** |  |
| **EMPLOYER CONTACT ADDRESS** |  |
|  |
| **Code** |  |
| **Supervisor Name** |  |
| **Supervisor Contact Address** |  |
|  |
| **Code** |  |
| **Telephone (H)** |  |
| **Telephone (W)** |  |
| **Cellular** |  |

INTRODUCTION

#### Welcome to the learning programme

Follow along in the guide as the training practitioner takes you through the material. Make notes and sketches that will help you to understand and remember what you have learnt. Take notes and share information with your colleagues. Important and relevant information and skills are transferred by sharing!



This learning programme is divided into sections. Each section is preceded by a description of the required outcomes and assessment criteria as contained in the unit standards specified by the South African Qualifications Authority. These descriptions will define what you have to know and be able to do in order to be awarded the credits attached to this learning programme. These credits are regarded as building blocks towards achieving a National Qualification upon successful assessment and can never be taken away from you!

Structure

### Programme methodology



The programme methodology includes facilitator presentations, readings, individual activities, group discussions and skill application exercises.

Know what you want to get out of the programme from the beginning and start applying your new skills immediately. Participate as much as possible so that the learning will be interactive and stimulating.

The following principles were applied in designing the course:

* Because the course is designed to maximise interactive learning, you are encouraged and required to participate fully during the group exercises
* As a learner you will be presented with numerous problems and will be required to fully apply your mind to finding solutions to problems before being presented with the course presenter’s solutions to the problems
* Through participation and interaction the learners can learn as much from each other as they do from the course presenter
* Although learners attending the course may have varied degrees of experience in the subject matter, the course is designed to ensure that all delegates complete the course with the same level of understanding
* Because reflection forms an important component of adult learning, some learning resources will be followed by a self-assessment which is designed so that the learner will reflect on the material just completed.

This approach to course construction will ensure that learners first apply their minds to finding solutions to problems before the answers are provided, which will then maximise the learning process which is further strengthened by reflecting on the material covered by means of the self-assessments.

#### Different role players in delivery process

* Learner
* Facilitator
* Assessor
* Moderator

### What Learning Material you should have

This learning material has also been designed to provide the learner with a comprehensive reference guide.

It is important that you take responsibility for your own learning process; this includes taking care of your learner material. You should at all times have the following material with you:

|  |  |
| --- | --- |
| **Learner Guide** | **This learner guide is your valuable possession:**This is your textbook and reference material, which provides you with all the information you will require to meet the exit level outcomes. During contact sessions, your facilitator will use this guide and will facilitate the learning process. During contact sessions a variety of activities will assist you to gain knowledge and skills. Follow along in the guide as the training practitioner takes you through the material. Make notes and sketches that will help you to understand and remember what you have learnt. Take and share information with your colleagues. Important and relevant information and skills are transferred by sharing!This learning programme is divided into sections. Each section is preceded by a description of the required outcomes and assessment criteria as contained in the unit standards specified by the South African Qualifications Authority. These descriptions will define what you have to know and be able to do in order to be awarded the credits attached to this learning programme. These credits are regarded as building blocks towards achieving a National Qualification upon successful assessment and can never be taken away from you! |
| **Formative Assessment Workbook** | The Formative Assessment Workbook supports the Learner Guide and assists you in applying what you have learnt. The formative assessment workbook contains classroom activities that you have to complete in the classroom, during contact sessions either in groups or individually.You are required to complete all activities in the Formative Assessment Workbook. The facilitator will assist, lead and coach you through the process.These activities ensure that you understand the content of the material and that you get an opportunity to test your understanding.  |

### Different types of activities you can expect

To accommodate your learning preferences, a variety of different types of activities are included in the formative and summative assessments. They will assist you to achieve the outcomes (correct results) and should guide you through the learning process, making learning a positive and pleasant experience.



The table below provides you with more information related to the types of activities.

| **Types of Activities** | **Description** | **Purpose** |
| --- | --- | --- |
| **Knowledge Activities** | You are required to complete these activities on your own.  | These activities normally test your understanding and ability to apply the information. |
| **Skills Application Activities** | You need to complete these activities in the workplace  | These activities require you to apply the knowledge and skills gained in the workplace |
| **Natural Occurring Evidence** | You need to collect information and samples of documents from the workplace. | These activities ensure you get the opportunity to learn from experts in the industry.Collecting examples demonstrates how to implement knowledge and skills in a practical way |

### Learner Administration



#### Attendance Register

You are required to sign the Attendance Register every day you attend training sessions facilitated by a facilitator.

#### Programme Evaluation Form

On completion you will be supplied with a “Learning programme Evaluation Form”. You are required to evaluate your experience in attending the programme.

Please complete the form at the end of the programme, as this will assist us in improving our service and programme material. Your assistance is highly appreciated.

### Assessments

The only way to establish whether a learner is competent and has accomplished the specific outcomes is through the assessment process. Assessment involves collecting and interpreting evidence about the learners’ ability to perform a task.

To qualify and receive credits towards your qualification, a registered Assessor will conduct an evaluation and assessment of your portfolio of evidence and competency.

This programme has been aligned to registered unit standards. You will be assessed against the outcomes as stipulated in the unit standard by completing assessments and by compiling a portfolio of evidence that provides proof of your ability to apply the learning to your work situation.



**How will Assessments commence?**

#### Formative Assessments

The assessment process is easy to follow. You will be guided by the Facilitator. Your responsibility is to complete all the activities in the Formative Assessment Workbook and submit it to your facilitator.

#### Summative Assessments

You will be required to complete a series of summative assessments. The Summative Assessment Guide will assist you in identifying the evidence required for final assessment purposes. You will be required to complete these activities on your own time, using real life projects in your workplace or business environment in preparing evidence for your Portfolio of Evidence. Your Facilitator will provide more details in this regard.

To qualify and receive credits towards your qualification, a registered Assessor will conduct an evaluation and assessment of your portfolio of evidence and competency.

### Learner Support

The responsibility of learning rests with you, so be proactive and ask questions and seek assistance and help from your facilitator, if required.



Please remember that this Skills Programme is based on outcomes based education principles which implies the following:

* You are responsible for your own learning – make sure you manage your study, research and workplace time effectively.
* Learning activities are learner driven – make sure you use the Learner Guide and Formative Assessment Workbook in the manner intended, and are familiar with the workplace requirements.
* The Facilitator is there to reasonably assist you during contact, practical and workplace time for this programme – make sure that you have his/her contact details.
* You are responsible for the safekeeping of your completed Formative Assessment Workbook and Workplace Guide
* If you need assistance please contact your facilitator who will gladly assist you.
* If you have any special needs please inform the facilitator

### Learner Expectations

Please prepare the following information. You will then be asked to introduce yourself to the instructor as well as your fellow learners



|  |
| --- |
| Your name:  |
|  |
|  |
| The organisation you represent:  |
|  |
|  |
| Your position in organisation:  |
|  |
|  |
| What do you hope to achieve by attending this course / what are your course expectations? |
|  |
|  |
|  |
|  |
|  |

# UNIT STANDARD 252204

#### Unit Standard Title

Monitor marketing information flow and collect and process marketing data

#### NQF Level

4

#### Credits

4

#### Purpose

The person credited with this standard will be able to identify, gather and combine marketing information for dissemination, will also be able to review and monitor marketing information processes.

The qualifying learner is capable of:

* Identifying marketing information sources pertaining to the job.
* Gathering external data for information purposes.
* Combining and disseminate information to marketing decision makers according to organisational polices.
* Monitoring and review marketing information processes.

#### Learning Assumed To Be In Place And Recognition Of Prior Learning

Learners accessing this unit standard will have demonstrated competence in:

* Communication at NQF Level 3.
* Mathematical Literacy at NQF Level 3.

#### Unit Standard Range

* Marketing including all forms of marketing communications, direct marketing and relationship marketing, sponsorship, event marketing, sales promotions, public relations and alternative strategies.
* Standard applies to marketing management, customer management, marketing communications and marketing research.
* Data gathering processes including questionnaires, lists, sales data, account data, returns, sale/marketing force input, telemarketing and customer data.

#### Specific Outcomes and Assessment Criteria:

**Specific Outcome 1**

Identify marketing information sources pertaining to the job.

**Assessment Criteria**

* Internal information sources are identified through internal consultation.
* Identified information is recorded in the required format.
* Internal flow of marketing information is carried out in accordance with established information processing procedures.
* The information is recorded with critical success factors identified.
* Information is identified and the processing flow systems are carried out to meet the needs of individuals, groups and the organisation.

**Specific Outcome 2**

Gather external data for information purposes.

**Assessment Criteria**

* The objective is clearly defined to ensure the relevant gathering of data.
* The source of data is credible and relevant to the project.
* The methodology for gathering data is appropriate to the objectives.
* The sample base used to gather data is statistically valid.
* The information is gathered timeously and within agreed budget.
* The consequences of not gathering accurate and relevant information are identified in line wit decision-making objectives.

**Specific Outcome 3**

Combine and disseminate information to marketing decision makers according to organisational policies.

**Assessment Criteria**

* Information flow is timely and provides sufficient data to make decisions on its effectiveness.
* The information processed is valid and relevant to the defined problem requirements.
* The user is able to store and manage the information.
* The data processed is validated for accuracy.
* The process that is used to evaluate the data enables decision makers to reach appropriate conclusions.
* The processing of data for decision makers is completed within the agreed time frames and budget.

**Specific Outcome 4**

Monitor and review marketing information processes.

**Assessment Criteria**

* Data collection methods are reviewed for cost effectiveness.
* Monitoring identified information processing problems and allows for remedial action to be implemented.
* Review procedures ensure opportunities to enhance information flow and processes.
* Enhanced information flow systems and processes that are identified for improvement are compatible with organisational marketing requirements.

#### Unit Standard Accreditation And Moderation Options

* An individual wishing to be assessed (including through RPL) against this unit standard may apply to an assessment agency, assessor or provider institution accredited by the relevant ETQA.
* Anyone assessing a learner against this unit standard must be registered as an assessor with the relevant ETQA.
* Any institution offering learning that will enable achievement of this unit standard or assessing this unit standard must be accredited as a provider with the relevant ETQA.
* Moderation of assessment will be conducted by the relevant ETQA at its discretion.

#### Unit Standard Essential Embedded Knowledge

A general understanding of methods and techniques for gathering and processing data.

#### Critical Cross-field Outcomes (CCFO):

**Unit Standard CCFO Identifying**

Identify and solve problems pertaining to problems experienced with information flow and data processing within the organisation.

**Unit Standard CCFO Working**

Work effectively with others as a member of a team, group, organisation or community in the gathering of information.

**Unit Standard CCFO Organising**

Organise oneself and one's activities responsibly and effectively in the gathering and processing of data.

**Unit Standard CCFO Collecting**

Collect, evaluate, organise and critically evaluate information to make accurate decisions on the flow of marketing information and for the processing of marketing data.

**Unit Standard CCFO Science**

Use science and technology in the monitoring of information flow and the gathering and processing of marketing data.

**Unit Standard CCFO Demonstrating**

Understand the world as a set of related systems in that information flow affects areas of business and its decision making process.

# IDENTIFY MARKETING INFORMATION SOURCES

#### ***Specific Outcome 1***

Identify marketing information sources pertaining to the job.

#### ***Assessment Criteria***

* Internal information sources are identified through internal consultation.
* Identified information is recorded in the required format.
* Internal flow of marketing information is carried out in accordance with established information processing procedures.
* The information is recorded with critical success factors identified.
* Information is identified and the processing flow systems are carried out to meet the needs of individuals, groups and the organisation.

## Marketing Information Systems

To understand the proper role of information systems one must examine what managers do and what information they need for decision making.

We must also understand how decisions are made and what kinds of decision problems can be supported by formal information systems. One can then determine whether information systems will be valuable tools and how they should be designed.

**The Functions of Management**

Clearly, information systems that claim to support managers cannot be built unless one understands what managers do and how they do it.

The classical model of what managers do, espoused by writers in the 1920's, such as Henry Fayol, whilst intuitively attractive in itself, is of limited value as an aid to information system design. The classical model identifies the following 5 functions as the parameters of what managers do:

* Planning
* Organising
* Coordinating
* Deciding
* Controlling

Such a model emphasises what managers do, but not how they do it, or why. More recently, the stress has been placed upon the behavioural aspects of management decision making.

Behavioural models are based on empirical evidence showing that managers are less systematic, less reflective, more reactive and less well organised than the classical model projects managers to be.

For instance, behavioural models describe 5 managerial characteristics:

* High volume, high speed work
* Variety, fragmentation, brevity
* Issue preference current, ad hoc, specific
* Complex web of interactions, contacts
* Strong preference for verbal media

Such behavioural models stress that managers work at an unrelenting pace and at a high level of intensity. This is just as true for managers operating in the developing world as in the developed world.

The nature of the pressures may be different but there is no evidence that they are any less intense.

The model also emphasises that the activities of managers is characterised by variety, fragmentation and brevity.

There is simply not enough time for managers to get deeply involved in a wide range of issues; the attention of managers increase rapidly from one issue to another, with very little pattern. A problem occurs and all other matters must be dropped until it is solved.

Research suggests that a manager's day is characterised by a large number of tasks with only small periods of time devoted to each individual task.

Managers prefer speculation, hearsay, gossip in brief, current, up-to-date, although uncertain information. Historical, certain, routine information receives less attention. Managers want to work on issues that are current, specific and ad hoc.

Managers are involved in a complex and diverse web of contacts that together act as an information system.

They converse with customers, competitors, colleagues, peers, secretaries, government officials, and so forth.

In one sense, managers operate a network of contacts throughout the organisation and the environment.

Several studies have found that managers prefer verbal forms of communication to written forms. Verbal media are perceived to offer greater flexibility, require less effort and bring a faster response.

Communication is the work of the manager, and he or she uses whatever tools are available to be an effective communicator.

Despite the flood of work, the numerous deadlines, and the random order of crises, it has generally been found that successful managers appear to be able to control their own affairs.

To some extent, high-level managers are at the mercy of their subordinates, who bring to their attention crises and activities that must be attended to immediately. Nevertheless, successful managers are those who can control the activities that they choose to get involved in on a day-to-day basis.

By developing their own long-term commitments, their own information channels, and their own networks, senior managers can control their personal agendas.

Less successful managers tend to be overwhelmed by problems brought to them by subordinates.

### Managerial Roles

Mintzberg suggests that managerial activities fall into 3 categories: interpersonal, information processing and decision making. An important interpersonal role is that of figurehead for the organisation.

Second, a manager acts as a leader, attempting to motivate subordinates. Lastly, managers act as a liaison between various levels of the organisation and, within each level, among levels of the management team.

A second set of managerial roles, termed as informational roles, can be identified.

Managers act as the nerve centre for the organisation, receiving the latest, most concrete, most up-to-date information and redistributing it to those who need to know.

A more familiar set of managerial roles is that of decisional roles. Managers act as entrepreneurs by initiating new kinds of activities; they handle disturbances arising in the organisation; they allocate resources where they are needed in the organisation; and they mediate between groups in conflict within the organisation.

In the area of interpersonal roles, information systems are extremely limited and make only indirect contributions, acting largely as a communications aid in some of the newer office automation and communication-oriented applications.

These systems make a much larger contribution in the field of informational roles; large-scale MIS systems, office systems, and professional work stations that can enhance a manager's presentation of information are significant.

In the area of decision making, only recently have decision support systems and microcomputer-based systems begun to make important contributions.

While information systems have made great contributions to organisations, until recently these contributions have been confined to narrow, transaction processing areas.

Much work needs to be done in broadening the impact of systems on professional and managerial life.

### Decision Making

Decision making is often seen as the centre of what managers do, something that engages most of a manager’s time.

It is one of the areas that information systems have sought most of all to affect (with mixed success). Decision making can be divided into 3 types: strategic, management control and operations control.

Strategic decision making: This level of decision making is concerned with deciding on the objectives, resources and policies of the organisation.

A major problem at this level of decision making is predicting the future of the organisation and its environment, and matching the characteristics of the organisation to the environment.

This process generally involves a small group of high-level managers who deal with very complex, non-routine problems.

For example, some years ago, a medium-sized food manufacturer in an East African country faced strategic decisions concerning its range of pasta products.

These products constituted a sizeable proportion of the company's sales turnover. However, the company was suffering recurrent problems with the poor quality of durum wheat it was able to obtain resulting in a finished product that was too brittle.

Moreover, unit costs were shooting up due to increasingly frequent breakdowns in the ageing equipment used in pasta production. The company faced the decision whether to make a very large investment in new machinery or to accept the offer of another manufacturer of pasta products, in a neighbouring country, that it should supply the various pasta products and the local company put its own brand name on the packs.

The decision is strategic since the decision has implications for the resource base of the enterprise, i.e. its capital equipment, its work force, its technological base etc.

The implications of strategic decisions extend over many years, often as much as ten to fifteen years.

Management control decisions: Such decisions are concerned with how efficiently and effectively resources are utilised and how well operational units are performing.

Management control involves close interaction with those who are carrying out the tasks of the organisation; it takes place within the context of broad policies and objectives set out by strategic planners.

An example might be where a transporter of agricultural products observes that his/her profits are declining due to a decline in the capacity utilisation of his/her two trucks.

The manager (in this case the owner) has to decide between several alternative courses of action, including: selling of trucks, increasing promotional activity in an attempt to sell the spare carrying capacity, increasing unit carrying charges to cover the deficit, or seeking to switch to carrying products or produce with a higher unit value where the returns to transport costs may be correspondingly higher. Management control decisions are more tactical than strategic.

Operational control decisions: These involve making decisions about carrying out the “specific tasks set forth by strategic planners and management.

Determining which units or individuals in the organisation will carry out the task, establishing criteria of completion and resource utilisation, evaluating outputs - all of these tasks involve decisions about operational control.

The focus here is on how the enterprises should respond to day-to-day changes in the business environment.

In particular, this type of decision making focuses on adaptation of the marketing mix, e.g. how should the firm respond to an increase in the size of a competitor's sales force?

Should the product line be extended? Should distributors who sell below a given sales volume be serviced through wholesalers rather than directly, and so on?

Within each of these levels, decision making can be classified as either structured or unstructured. Unstructured decisions are those in which the decision maker must provide insights into the problem definition.

They are novel, important, and non-routine, and there is no well-understood procedure for making them. In contrast, structured decisions are repetitive, routine, and involve a definite procedure for handling them so that they do not have to be treated each time as if they were new.

Structured and unstructured problem solving occurs at all levels of management. In the past, most of the success in most information systems came in dealing with structured, operational, and management control decisions.

However, in more recent times, exciting applications are occurring in the management and strategic planning areas, where problems are either semi-structured or are totally unstructured.

Making decisions is not a single event but a series of activities taking place over time.

Suppose, for example, that the Operations Manager for the National Milling Corporation is faced with a decision as to whether to establish buying points in rural locations for the grain crop.

It soon becomes apparent that the decisions are likely to be made over a period of time, have several influences, use many sources of information and have to go through several stages.

It is worth considering the question of how, if at all, information systems could assist in making such a decision.

To arrive at some answer, it is helpful to break down decision making into its component parts.

The literature has described 4 stages in decision making: intelligence, design, choice and implementation.

That is, problems have to be perceived and understood; once perceived solutions must be designed; once solutions are designed, choices have to be made about a particular solution; finally, the solution has to be implemented.

Intelligence involves identifying the problems in the organisation: why and where they occur with what effects.

This broad set of information gathering activities is required to inform managers how well the organisation is performing and where problems exist.

Management information systems that deliver a wide variety of detailed information can be useful, especially if they are designed to report exceptions.

For instance, consider a commercial organisation marketing a large number of different products and product variations. Management will want to know, at frequent intervals, whether sales targets are being achieved.

Ideally, the information system will report only those products/product variations which are performing substantially above or below target.

Designing many possible solutions to the problems is the second phase of decision making. This phase may require more intelligence to decide if a particular solution is appropriate.

Here, more carefully specified and directed information activities and capabilities focused on specific designs are required.

Choosing among alternative solutions is the third step in the decision making process. Here a manager needs an information system which can estimate the costs, opportunities and consequences of each alternative problem solution.

The information system required at this stage is likely to be fairly complex, possibly also fairly large, because of the detailed analytic models required to calculate the outcomes of the various alternatives.

Of course, human beings are used to making such calculations for themselves, but without the aid of a formal information system, we rely upon generalisation and/or intuition.

Implementing is the final stage in the decision making process. Here, managers can install a reporting system that delivers routine reports on the progress of a specific solution, some of the difficulties that arise, resource constraints, and possible remedial actions.

The table below illustrates the stages in decision making and the general type of information required at each stage.

|  |  |
| --- | --- |
| **Decision Making Stage** | **Information requirement** |
| ***1*** | Intelligence | Exception reporting |
| ***2*** | Design | Simulation prototype |
| ***3*** | Choice | What-if simulation |
| ***4*** | Implementation | Graphics, charts |

In practice, the stages of decision making do not necessarily follow a linear path from intelligence to design, choice and implementation. Consider again the problem of balancing the costs and benefits of establishing local buying points for the National Milling Corporation.

At any point in the decision making process it may be necessary to loop back to a previous stage.

For example, one may have reached stage 3 and all but decided that having considered the alternatives of setting up no local buying points, local buying points in all regions, districts or villages, the government decides to increase the amounts held in the strategic grain reserve.

This could cause the parastatal to return to stage 2 and reassess the alternatives. Another scenario would be that having implemented a decision one quickly receives feedback indicating that it is not proving effective. Again, the decision maker may have to repeat the design and/or choice stage(s).

Thus, it can be seen that information system designers have to take into account the needs of managers at each stage of the decision making process. Each stage has its own requirements.

## Components of a marketing information system

A marketing information system (MIS) is intended to bring together disparate items of data into a coherent body of information.

An MIS is, as will shortly be seen, more than raw data or information suitable for the purposes of decision making.

An MIS also provides methods for interpreting the information the MIS provides.

Moreover, as Kotler's1 definition says, an MIS is more than a system of data collection or a set of information technologies:

*"A marketing information system is a continuing and interacting structure of people, equipment and procedures to gather, sort, analyse, evaluate, and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation, and control".*

The figure on the next page illustrates the major components of an MIS, the environmental factors monitored by the system and the types of marketing decision which the MIS seeks to underpin.



The explanation of this model of an MIS begins with a description of each of its four main constituent parts: the internal reporting systems, marketing research system, marketing intelligence system and marketing models.

It is suggested that whilst the MIS varies in its degree of sophistication - with many in the industrialised countries being computerised and few in the developing countries being so - a fully fledged MIS should have these components, the methods (and technologies) of collection, storing, retrieving and processing data notwithstanding.

**Internal reporting systems:** All enterprises which have been in operation for any period of time nave a wealth of information.

However, this information often remains under-utilised because it is compartmentalised, either in the form of an individual entrepreneur or in the functional departments of larger businesses.

That is, information is usually categorised according to its nature so that there are, for example, financial, production, manpower, marketing, stockholding and logistical data.

Often the entrepreneur, or various personnel working in the functional departments holding these pieces of data, does not see how it could help decision makers in other functional areas.

Similarly, decision makers can fail to appreciate how information from other functional areas might help them and therefore do not request it.

The internal records that are of immediate value to marketing decisions are: orders received, stockholdings and sales invoices.

These are but a few of the internal records that can be used by marketing managers, but even this small set of records is capable of generating a great deal of information.

Below is a list of some of the information that can be derived from sales invoices:

* Product type, size and pack type by territory
* Product type, size and pack type by type of account
* Product type, size and pack type by industry
* Product type, size and pack type by customer
* Average value and/or volume of sale by territory
* Average value and/or volume of sale by type of account
* Average value and/or volume of sale by industry
* Average value and/or volume of sale by sales person

By comparing orders received with invoices an enterprise can establish the extent to which it is providing an acceptable level of customer service. In the same way, comparing stockholding records with orders received helps an enterprise ascertain whether its stocks are in line with current demand patterns.

**Marketing research systems:** The general topic of marketing research has been the prime ' subject of the textbook and only a little more needs to be added here.

Marketing research is a proactive search for information. That is, the enterprise which commissions these studies does so to solve a perceived marketing problem.

In many cases, data is collected in a purposeful way to address a well-defined problem (or a problem which can be defined and solved within the course of the study).

The other form of marketing research centres not around a specific marketing problem but is an attempt to continuously monitor the marketing environment.

These monitoring or tracking exercises are continuous marketing research studies, often involving panels of farmers, consumers or distributors from which the same data is collected at regular intervals.

Whilst the ad hoc study and continuous marketing research differs in the orientation, yet they are both proactive.

**Marketing intelligence systems:** Whereas marketing research is focused, market intelligence is not. A marketing intelligence system is a set of procedures and data sources used by marketing managers to sift information from the environment that they can use in their decision making.

This scanning of the economic and business environment can be undertaken in a variety of ways, including:

#### Unfocused scanning

The manager, by virtue of what he/she reads, hears and watches exposes him/herself to information that may prove useful.

Whilst the behaviour is unfocused and the manager has no specific purpose in mind, it is not unintentional

#### Semi-focused scanning

Again, the manager is not in search of particular pieces of information that he/she is actively searching but does narrow the range of media that is scanned.

For instance, the manager may focus more on economic and business publications, broadcasts etc. and pay less attention to political, scientific or technological media.

#### Informal search

This describes the situation where a fairly limited and unstructured attempt is made to obtain information for a specific purpose.

For example, the marketing manager of a firm considering entering the business of importing frozen fish from a neighbouring country may make informal inquiries as to prices and demand levels of frozen and fresh fish.

There would be little structure to this search with the manager making inquiries with traders he/she happens to encounter as well as with other ad hoc contacts in ministries, international aid agencies, with trade associations, importers/exporters etc.

#### Formal search

This is a purposeful search after information in some systematic way. The information will be required to address a specific issue.

Whilst this sort of activity may seem to share the characteristics of marketing research it is carried out by the manager him/herself rather than a professional researcher.

Moreover, the scope of the search is likely to be narrow in scope and far less intensive than marketing research

Marketing intelligence is the province of entrepreneurs and senior managers within an agribusiness. It involves them in scanning newspaper trade magazines, business journals and reports, economic forecasts and other media.

In addition it involves management in talking to producers, suppliers and customers, as well as to competitors.

Nonetheless, it is a largely informal process of observing and conversing.

Some enterprises will approach marketing intelligence gathering in a more deliberate fashion and will train its sales force, after-sales personnel and district/area managers to take cognisance of competitors' actions, customer complaints and requests and distributor problems.

Enterprises with vision will also encourage intermediaries, such as collectors, retailers, traders and other middlemen to be proactive in conveying market intelligence back to them.

**Marketing models:** Within the MIS there has to be the means of interpreting information in order to give direction to decision. These models may be computerised or may not.

Typical tools are:

* Time series sales modes
* Brand switching models
* Linear programming
* Elasticity models (price, incomes, demand, supply, etc.)
* Regression and correlation models
* Analysis of Variance (ANOVA) models
* Sensitivity analysis
* Discounted cash flow
* Spreadsheet 'what if models

These and similar mathematical, statistical, econometric and financial models are the analytical subsystem of the MIS.

A relatively modest investment in a desktop computer is enough to allow an enterprise to automate the analysis of its data.

Some of the models used are stochastic, i.e. those containing a probabilistic element whereas others are deterministic models where chance plays no part.

Brand switching models are stochastic since these express brand choices in probabilities whereas linear programming is deterministic in that the relationships between variables are expressed in exact mathematical terms.

Marketing information systems are intended to support management decision making. Management has five distinct functions and each requires support from an MIS.

These are:

* Planning
* Organising
* Coordinating
* Decisions
* Controlling

Information systems have to be designed to meet the way in which managers tend to work.

Research suggests that a manager continually addresses a large variety of tasks and is able to spend relatively brief periods on each of these.

Given the nature of the work, managers tend to rely upon information that is timely and verbal (because this can be assimilated quickly), even if this is likely to be less accurate then more formal and complex information systems.

Managers play at least three separate roles: interpersonal, informational and decisional. MIS, in electronic form or otherwise, can support these roles in varying degrees.

MIS has less to contribute in the case of a manager's informational role than for the other two.

Three levels of decision making can be distinguished from one another: strategic, control (or tactical) and operational.

Again, MIS has to support each level. Strategic decisions are characteristically one-off situations. Strategic decisions have implications for changing the structure of an organisation and therefore the MIS must provide information which is precise and accurate.

Control decisions deal with broad policy issues and operational decisions concern the management of the organisation's marketing mix.

A marketing information system has four components: the internal reporting system, the marketing research systems, the marketing intelligence system and marketing models.

Internal reports include orders received, inventory records and sales invoices. Marketing research takes the form of purposeful studies either ad hoc or continuous.

By contrast, marketing intelligence is less specific in its purposes, is chiefly carried out in an informal manner and by managers themselves rather than by professional marketing researchers.

## Secondary Sources of Information

Marketing information must be timely, organised, useful and in a simple form if it is to ease decision making.

It should also be easily manipulated to satisfy the changing and ad hoc requirements of management for information.

There is more to marketing information than marketing research. Indeed, marketing research is a subsystem of the marketing information system.

A Marketing Information System (MIS) is a structure within an organisation designed to gather, process and store data from the organisation's external and internal environment and to disseminate this in the form of information to the organisation's marketing decision makers.

The activities performed by an MIS and its subsystems include information discovery, collection, interpretation (which may involve validation and filtering), analysis, and intra-company dissemination (storage, transmission, and/or dumping).

The nature of secondary sources of information

Secondary data is data which has been collected by individuals or agencies for purposes other than those of our particular research study.

For example, if a government department has conducted a survey of, say, family food expenditures, and then a food manufacturer might use this data in the organisation's evaluations of the total potential market for a new product. Similarly, statistics prepared by a ministry on agricultural production will prove useful to a whole host of people and organisations, including those marketing agricultural supplies.

No marketing research study should be undertaken without a prior search of secondary sources (also termed desk research).

There are several grounds for making such a bold statement:

**Secondary data may be available** which is entirely appropriate and wholly adequate to draw conclusions and answer the question or solve the problem. Sometimes primary data collection simply is not necessary.

**It is far cheaper** to collect secondary data than to obtain primary data. For the same level of research budget a thorough examination of secondary sources can yield a great deal more information than can be had through a primary data collection exercise.

**The time involved** in searching secondary sources is much less than that needed to complete primary data collection.

Secondary sources of information **can yield more accurate data** than that obtained through primary research. This is not always true but where a government or international agency has undertaken a large scale survey, or even a census, this is likely to yield far more accurate results than custom designed and executed surveys when these are based on relatively small sample sizes.

It should not be forgotten that **secondary data can play a substantial role** in the exploratory phase of the research when the task at hand is to define the research problem and to generate hypotheses. The assembly and analysis of secondary data almost invariably improves the researcher's understanding of the marketing problem, the various lines of inquiry that could or should be followed and the alternative courses of action which might be pursued.

Secondary sources **help define the population**. Secondary data can be extremely useful both in defining the population and in structuring the sample to be taken.

For instance, government statistics on a country's agriculture will help decide how to stratify a sample and, once sample estimates have been calculated, these can be used to project those estimates to the population.

#### ***The problems of secondary sources***

Whilst the benefits of secondary sources are considerable, their shortcomings have to be acknowledged.

There is a need to evaluate the quality of both the source of the data and the data itself. The main problems may be categorised as follows:

**Definitions**

 The researcher has to be careful, when making use of secondary data, of the definitions used by those responsible for its preparation. Suppose, for example, researchers are interested in rural communities and their average family size. If published statistics are consulted then a check must be done on how terms such as "family size" have been defined.

They may refer only to the nucleus family or include the extended family. Even apparently simple terms such as 'farm size' need careful handling.

Such figures may refer to any one of the following: the land an individual owns, the land an individual owns plus any additional land he/she rents, the land an individual owns minus any land he/she rents out, all of his land or only that part of it which he actually cultivates.

It should be noted that definitions may change over time and where this is not recognised erroneous conclusions may be drawn.

Geographical areas may have their boundaries redefined, units of measurement and grades may change and imported goods can be reclassified from time to time for purposes of levying customs and excise duties.

 **Measurement error**

 When a researcher conducts fieldwork she/he is possibly able to estimate inaccuracies in measurement through the standard deviation and standard error, but these are sometimes not published in secondary sources.

The only solution is to try to speak to the individuals involved in the collection of the data to obtain some guidance on the level of accuracy of the data. The problem is sometimes not so much 'error' but differences in levels of accuracy required by decision makers.

When the research has to do with large investments in, say, food manufacturing, management will want to set very tight margins of error in making market demand estimates.

In other cases, having a high level of accuracy is not so critical. For instance, if a food manufacturer is merely assessing the prospects for one more flavour for a snack food already produced by the company then there is no need for highly accurate estimates in order to make the investment decision.

 **Source bias**

 Researchers have to be aware of vested interests when they consult secondary sources. Those responsible for their compilation may have reasons for wishing to present a more optimistic or pessimistic set of results for their organisation.

It is not unknown, for example, for officials responsible for estimating food shortages to exaggerate figures before sending aid requests to potential donors.

Similarly, and with equal frequency, commercial organisations have been known to inflate estimates of their market shares.

#### ***Reliability***

 The reliability of published statistics may vary over time. It is not uncommon, for example, for the systems of collecting data to have changed over time but without any indication of this to the reader of published statistics.

Geographical or administrative boundaries may be changed by government, or the basis for stratifying a sample may have altered. Other aspects of research methodology that affect the reliability of secondary data is the sample size, response rate, questionnaire design and modes of analysis.

 **Time scale**

 Most censuses take place at 10 year intervals, so data from this and other published sources may be out-of-date at the time the researcher wants to make use of the statistics.

The time period during which secondary data was first compiled may have a substantial effect upon the nature of the data.

For instance, the significant increase in the price obtained for Ugandan coffee in the mid-90's could be interpreted as evidence of the effectiveness of the rehabilitation programme that set out to restore coffee estates which had fallen into a state of disrepair.

However, more knowledgeable coffee market experts would interpret the rise in Ugandan coffee prices in the context of large scale destruction of the Brazilian coffee crop, due to heavy frosts, in 1994, Brazil being the largest coffee producer in the world.

Whenever possible, marketing researchers should use multiple sources of secondary data. In this way, these different sources can be cross-checked as confirmation of one another. Where differences occur an explanation for these must be found or the data should be set aside.

The figure below presents a flowchart depicting the decision path that should be followed when using secondary data. As can be seen, the flowchart divides into two phases. The early stages of the flowchart relate to the relevance of the data to the research objectives. The later stages of the flowchart are concerned with questions about the accuracy of secondary data.



## Sources of information

Secondary sources of information may be divided into two categories: internal sources and external sources.

### **Internal sources of secondary information**

#### Sales data:

All organisations collect information in the course of their everyday operations.

Orders are received and delivered, costs are recorded, sales personnel submit visit reports, invoices are sent out, returned goods are recorded and so on.

Much of this information is of potential use in marketing research but a surprising amount of it is actually used.

Organisations frequently overlook this valuable resource by not beginning their search of secondary sources with an internal audit of sales invoices, orders, inquiries about products not stocked, returns from customers and sales force customer calling sheets.

For example, consider how much information can be obtained from sales orders and invoices:

* Sales by province
* Sales by customer type
* Prices and discounts
* Average size of order by customer, customer type, geographical area
* Average sales by sales person and
* Sales by pack size and pack type, etc.

This type of data is useful for identifying an organisation's most profitable product and customers. It can also serve to track trends within the enterprise's existing customer group.

#### Financial data:

An organisation has a great deal of data within its files on the cost of producing, storing, transporting and marketing each of its products and product lines.

Such data has many uses in marketing research including allowing measurement of the efficiency of marketing operations.

It can also be used to estimate the costs attached to new products under consideration, of particular utilisation (in production, storage and transportation) at which an organisation's unit costs begin to fall.

#### Transport data:

Companies that keep good records relating to their transport operations are well placed to establish which are the most profitable routes, and loads, as well as the most cost effective routing patterns.

Good data on transport operations enables the enterprise to perform trade-off analysis and thereby establish whether it makes economic sense to own or hire vehicles, or the point at which a balance of the two gives the best financial outcome.

#### Storage data:

The rate of stock turn, stock handling costs, assessing the efficiency of certain marketing operations and the efficiency of the marketing system as a whole.

More sophisticated accounting systems assign costs to the cubic space occupied by individual products and the time period over which the product occupies the space.

These systems can be further refined so that the profitability per unit, and rate of sale, are added. In this way, the direct product profitability can be calculated.

### **External sources of secondary information**

The marketing researcher who seriously seeks after useful secondary data is more often surprised by its abundance than by its scarcity.

Too often, the researcher has secretly (sometimes subconsciously) concluded from the outset that his/her topic of study is so unique or specialised that a research of secondary sources is futile.

Consequently, only a specified search is made with no real expectation of sources. Cursory researches become a self-fulfilling prophecy. Dillon et. al give the following advice: "You should never begin a half-hearted search with the assumption that what is being sought is so unique that no one else has ever bothered to collect it and publish it. On the contrary, assume there are scrolling secondary data that should help providing definition and scope for the primary research effort."

The same authors support their advice by citing the large numbers of organisations that provide marketing information including national and local government agencies, quasi-government agencies, trade associations, universities, research institutes, financial institutions, specialist suppliers of secondary marketing data and professional marketing research enterprises.

Dillon et al further advise that searches of printed sources of secondary data begin with referral texts such as directories, indexes, handbooks and guides.

These sorts of publications rarely provide the data in which the researcher is interested but serve in helping him/her locate potentially useful data sources.

The main sources of external secondary sources are:

#### Government statistics

 These may include all or some of the following:

* Population censuses
* Social surveys, family expenditure surveys
* Import/export statistics
* Production statistics
* Agricultural statistics

#### Trade associations

 Trade associations differ widely in the extent of their data collection and information dissemination activities.

However, it is worth checking with them to determine what they do publish. At the very least one would normally expect that they would produce a trade directory and, perhaps, a yearbook.

#### Commercial services

 Published market research reports and other publications are available from a wide range of organisations which charge for their information.

Typically, marketing people are interested in media statistics and consumer information which has been obtained from large scale consumer or farmer panels.

The commercial organisation funds the collection of the data, which is wide ranging in its content, and hopes to make its money from selling this data to interested parties.

#### National and international institutions

 Bank economic reviews, university research reports, journals and articles are all useful sources to contact.

International agencies such as World Bank, IMF, IFAD, UNDP, ITC, FAO and ILO produce a plethora of secondary data which can prove extremely useful to the marketing researcher.

#### ***The information super-highway***

Advances in computers and telecommunications technology have combined to allow people around the world to exchange information quickly and inexpensively.

The computers of organisations, governments and even individuals can be linked to transmit and receive information through an international network of telephone lines, fibre optic cables and satellites.

This international network is commonly known as the Internet.

A search of secondary data sources should precede any primary research activity.

Secondary data may be sufficient to solve the problem, or at least it helps the reader better understand the problem under study.

Secondary data is cheaper and quicker to collect than primary data and can be more accurate.

Before making use of secondary data there is need to evaluate both the data itself and its source. Particular attention should be paid to definitions used, measurement error, source bias, reliability and the time span of the secondary data.

Where possible, multiple data sources should be used so that one source can be cross-checked for consistency with another.

A great deal of potentially useful secondary information already exists within enterprises. Typically useful information would be that relating to sales, finance, production, storage and transportation.

Where a serious search of secondary sources is undertaken then the marketing researcher often finds an abundance of relevant material.

Searches of printed secondary data should begin with a consultation of referral sources such as directories, handbooks, indexes, and the like.

It will almost certainly become the case, in all parts of the world, that electronic information sources will eventually supersede traditional printed sources.

With the advent of Internet and CD-ROM, searches of secondary sources are becoming more efficient and more effective. Computer-based information systems give access to four different types of database bibliographic, numeric, directories and full-text.

# THE GATHERING OF DATA

#### ***Specific Outcome 2***

Gather external data for information purposes.

#### ***Assessment Criteria***

* The objective is clearly defined to ensure the relevant gathering of data.
* The source of data is credible and relevant to the project.
* The methodology for gathering data is appropriate to the objectives.
* The sample base used to gather data is statistically valid.
* The information is gathered timeously and within agreed budget.
* The consequences of not gathering accurate and relevant information are identified in line wit decision-making objectives.

## Gathering the Data

A common feature of marketing research is the attempt to have respondents communicate their feelings, attitudes, opinions, and evaluations in some measurable form.

To this end, marketing researchers have developed a range of scales. Each of these has unique properties. What is important for the marketing analyst to realise is that they have widely differing measurement properties. Some scales are at very best, limited in their mathematical properties to the extent that they can only establish an association between variables.

Other scales have more extensive mathematical properties and some; hold out the possibility of establishing cause and effect relationships between variables. All measurements must take one of four forms and these are describe.

After the properties of the four categories of scale have been explained, various forms of comparative and non-comparative scales are illustrated.

Some of these scales are numeric, others are semantic and yet others take a graphical form. The marketing researcher who is familiar with the complete tool kit of scaling measurements is better equipped to understand markets.

### Scales

#### Nominal scales

This, the crudest of measurement scales, classifies individuals, companies, products, brands or other entities into categories where no order is implied. Indeed it is often referred to as a categorical scale.

It is a system of classification and does not place the entity along a continuum. It involves a simply count of the frequency of the cases assigned to the various categories, and if desired numbers can be nominally assigned to label each category as in the example below:

Which of the following food items do you tend to buy at least once per month? (Please tick)

|  |  |
| --- | --- |
| Peppers (green, red, yellow) |  |
| Cooking Oil (vegetable, sunflower, olive) |  |
| Prawns (fresh, frozen) |  |
| Rice (white, brown, basmati, jasmine) |  |
| Pasteurised Milk (full cream, low fat, fat free) |  |
| Potatoes (fresh whole, frozen chips, mash) |  |

The numbers have no arithmetic properties and act only as labels. The only measure of average which can be used is the mode because this is simply a set of frequency counts.

Hypothesis tests can be carried out on data collected in the nominal form. The most likely would be the Chi-square test.

However, it should be noted that the Chi-square is a test to determine whether two or more variables are associated and the strength of that relationship.

It can tell nothing about the form of that relationship, where it exists, i.e. it is not capable of establishing cause and effect.

#### Ordinal scales

Ordinal scales involve the ranking of individuals, attitudes or items along the continuum of the characteristic being scaled.

For example, if a researcher asked farmers to rank 5 brands of pesticide in order of preference he/she might obtain responses like those in table below.

An example of an ordinal scale used to determine farmers' preferences among 5 brands of pesticide.

|  |  |
| --- | --- |
| **Order of Preference** | **Product Brand** |
| 1 | Doom |
| 2 | Baygon |
| 3 | Target |
| 4 | Dynest |
| 5 | Blue death |

From such a table the researcher knows the order of preference but nothing about how much more one brand is preferred to another that is there is no information about the interval between any two brands.

All of the information a nominal scale would have given is available from an ordinal scale. In addition, positional statistics such as the median, quartile and percentile can be determined.

It is possible to test for order correlation with ranked data. The two main methods are Spearman's Ranked Correlation Coefficient and Kendall's Coefficient of Concordance.

Using either procedure one can, for example, ascertain the degree to which two or more survey respondents agree in their ranking of a set of items.

Consider again the ranking of pesticides example on the right.

The researcher might wish to measure similarities and differences in the rankings of pesticide brands according to whether the respondents' farm enterprises were classified as "arable" or "mixed" (a combination of crops and livestock).

The resultant coefficient takes a value in the range 0 to 1. A zero would mean that there was no agreement between the two groups, and 1 would indicate total agreement.

It is more likely that an answer somewhere between these two extremes would be found. The only other permissible hypothesis testing procedures are the runs test and sign test.

The runs test (also known as the Wald-Wolfowitz).

Test is used to determine whether a sequence of binomial data - meaning it can take only one of two possible values e.g. African/non-African, yes/no, male/female - is random or contains systematic 'runs' of one or other value. Sign tests are employed when the objective is to determine whether there is a significant difference between matched pairs of data.

The sign test tells the analyst if the number of positive differences in ranking is approximately equal to the number of negative rankings, in which case the distribution of rankings is random, i.e. apparent differences are not significant. The test takes into account only the direction of differences and ignores their magnitude and hence it is compatible with ordinal data.

#### Interval scales

It is only with an interval scaled data that researchers can justify the use of the arithmetic mean as the measure of average. The interval or cardinal scale has equal units of measurement, thus making it possible to interpret not only the order of scale scores but also the distance between them.

However, it must be recognised that the zero point on an interval scale is arbitrary and is not a true zero. This of course has implications for the type of data manipulation and analysis we can carry out on data collected in this form.

It is possible to add or subtract a constant to all of the scale values without affecting the form of the scale but one cannot multiply or divide the values.

It can be said that two respondents with scale positions 1 and 2 are as far apart as two respondents with scale positions 4 and 5, but not that a person with score 10 feels twice as strongly as one with score 5.

Temperature is interval scaled, being measured either in Centigrade or Fahrenheit. We cannot speak of 50°F being twice as hot as 25°F since the corresponding temperatures on the centigrade scale, 10°C and -3.9°C, are not in the ratio 2:1.

Interval scales may be either numeric or semantic. Study the examples below:

Examples of interval scales in numeric and semantic formats

|  |
| --- |
| Please indicate your views on Balkan Olives by scoring them on a scale of 5 down to 1 (i.e. 5 = Excellent; = Poor) on each of the criteria listed |
| Balkan Olives are: |  |  |  |  |  | Circle the appropriate score on each line |
| Succulence | 5 | 4 | 3 | 2 | 1 |  |
| Fresh tasting | 5 | 4 | 3 | 2 | 1 |  |
| Free of skin blemish | 5 | 4 | 3 | 2 | 1 |  |
| Good value | 5 | 4 | 3 | 2 | 1 |  |
| Attractively packaged | 5 | 4 | 3 | 2 | 1 |  |

|  |
| --- |
| Please indicate your views on Balkan Olives by ticking the appropriate responses below: |
|  | Excellent | Very Good | Good | Fair | Poor |
| Succulent |  |  |  |  |  |
| Freshness |  |  |  |  |  |
| Freedom from skin blemish |  |  |  |  |  |
| Value for money |  |  |  |  |  |
| Attractiveness of packaging |  |  |  |  |  |

Most of the common statistical methods of analysis require only interval scales in order that they might be used. These are not recounted here because they are so common and can be found in virtually all basic texts on statistics.

#### Ratio scales

The highest level of measurement is a ratio scale. This has the properties of an interval scale together with a fixed origin or zero point.

Examples of variables which are ratio scaled include weights, lengths and times. Ratio scales permit the researcher to compare both differences in scores and the relative magnitude of scores.

For instance the difference between 5 and 10 minutes is the same as that between 10 and 15 minutes, and 10 minutes is twice as long as 5 minutes.

Given that sociological and management research seldom aspires beyond the interval level of measurement, it is not proposed that particular attention be given to this level of analysis.

Suffice it to say that virtually all statistical operations can be performed on ratio scales.

#### Measurement scales

The various types of scales used in marketing research fall into two broad categories: comparative and non comparative. In comparative scaling, the respondent is asked to compare one brand or product against another.

With non-comparative scaling respondents need only evaluate a single product or brand. Their evaluation is independent of the other product and/or brands which the marketing researcher is studying.

Non-comparative scaling is frequently referred to as monadic scaling and this is the more widely used type of scale in commercial marketing research studies.

#### Comparative scales

**Paired comparison:**

It is sometimes the case that marketing researchers wish to find out which are the most important factors in determining the demand for a product.

Conversely they may wish to know which the most important factors are acting to prevent the widespread adoption of a product.

Take, for example, the very poor farmer response to the first design of an animal-drawn mould board plough.

A combination of exploratory research and shrewd observation suggested that the following factors played a role in the shaping of the attitudes of those farmers who feel negatively towards the design:

* Does not ridge
* Does not work for inter-cropping
* Far too expensive
* New technology too risky
* Too difficult to carry

Suppose the organisation responsible wants to know which factors is foremost in the farmer's mind. It may well be the case that if those factors that are most important to the farmer than the others, being of a relatively minor nature, will cease to prevent widespread adoption.

The alternatives are to abandon the product's re-development or to completely re-design it which is not only expensive and time-consuming, but may well be subject to a new set of objections.

The process of rank ordering the objections from most to least important is best approached through the questioning technique known as 'paired comparison'. Each of the objections is paired by the researcher so that with 5 factors, as in this example, there are 10 pairs-



In 'paired comparisons' every factor has to be paired with every other factor in turn. However, only one pair is ever put to the farmer at any one time.

The question might be put as follows:

Which of the following was the more important in making you decide not to buy the plough?

* The plough was too expensive
* It proved too difficult to transport

In most cases the question, and the alternatives, would be put to the farmer verbally. He/she then indicates which of the two was the more important and the researcher ticks the box on his questionnaire.

The question is repeated with a second set of factors and the appropriate box ticked again. This process continues until all possible combinations are exhausted, in this case 10 pairs. It is good practice to mix the pairs of factors so that there is no systematic bias.

The researcher should try to ensure that any particular factor is sometimes the first of the pair to be mentioned and sometimes the second. The researcher would never, for example, take the first factor (on this occasion 'Does not ridge') and systematically compare it to each of the others in succession. That is likely to cause systematic bias.

Below labels have been given to the factors so that the worked example will be easier to understand. The letters A - E have been allocated as follows:

A = Does not ridge

B = Far too expensive

C = New technology too risky

D = Does not work for inter-cropping

E = Too difficult to carry

The data is then arranged into a matrix. Assume that 200 farmers have been interviewed and their responses are arranged in the grid below. Further assume that the matrix is so arranged that we read from top to side.

This means, for example, that 164 out of 200 farmers said the fact that the plough was too expensive was a greater deterrent than the fact that it was not capable of ridging.

Similarly, 174 farmers said that the plough's inability to inter-crop was more important than the inability to ridge when deciding not to buy the plough.

**A preference Matrix**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **A** | **B** | **C** | **D** | **E** |
| **A** | 100 | 164 | 120 | 174 | 180 |
| **B** | 36 | 100 | 160 | 176 | 166 |
| **C** | 80 | 40 | 100 | 168 | 124 |
| **D** | 26 | 24 | 32 | 100 | 102 |
| **E** | 20 | 34 | 76 | 98 | 100 |

If the grid is carefully read, it can be seen that the rank order of the factors is -

Most important Too difficult to carry E

 Does not inter crop D

 New technology/high risk C

 Too expensive B

 Least important Does not ridge A

It can be seen that it is more important for designers to concentrate on improving transportability and, if possible, to give it an inter-cropping capability rather than focusing on its ridging capabilities (remember that the example is entirely hypothetical).

One major advantage to this type of questioning is that whilst it is possible to obtain a measure of the order of importance of five or more factors from the respondent, he is never asked to think about more than two factors at any one time. This is especially useful when dealing with illiterate farmers.

Having said that, the researcher has to be careful not to present too many pairs of factors to the farmer during the interview.

If he does, he will find that the farmer will quickly get tired and/or bored. It is as well to remember the formula of n(n - 1)/2. For ten factors, brands or product attributes this would give 45 pairs.

Clearly the farmer should not be asked to subject himself to having the same question put to him 45 times. For practical purposes, six factors is possibly the limit, giving 15 pairs. It should be clear from the procedures described in these notes that the paired comparison scale gives ordinal data.

Rand Metric Comparisons: This type of scale is an extension of the paired comparison method in that it requires respondents to indicate both their preference and how much they are willing to pay for their preference.

This scaling technique gives the marketing researcher an interval - scaled measurement. An example is given in the figure below.

An example of a Rand-metric scale:

|  |  |
| --- | --- |
| Which of the following types of fish do you prefer? | How much more, in cents, would you be prepared to pay for your preferred fish? |
| Fresh |  | Fresh (gutted) |  | R0.70 |
| Fresh (gutted) |  | Smoked |  | 0.50 |
| Frozen |  | Smoked |  | 0.60 |
| Frozen |  | Fresh |  | 0.70 |
| Smoked |  | Fresh |  | 0.20 |
| Frozen(gutted) |  | Frozen |  |  |
| From the data above the preferences shown below can be computed as follows: |
| Fresh fish: | 0.70 | + 0.70 | + 0.20 | =1.60 |
| Smoked fish: | 0.60 | + (-0.20) | + (-0.50) | =(-1.10) |
| Fresh fish(gutted): | (-0.70) | + 0.30 | + 0.50 | =0.10 |
| Frozen fish: | (-0.60) | + (-0.70) | + (-0.30) | =(-1.60) |

#### The Unity-sum-gain technique:

A common problem with launching new products is one of reaching a decision as to what options, and how many options one offers. Whilst a company may be anxious to meet the needs of as many market segments as possible, it has to ensure that the segment is large enough to enable him to make a profit.

It is always easier to add products to the product line but much more difficult to decide which models should be deleted. One technique for evaluating the options which are likely to prove successful is the unity-sum-gain approach.

The procedure is to begin with a list of features which might possibly be offered as 'options' on the product, and alongside each you list its retail cost. A third column is constructed and this forms an index of the relative prices of each of the items. The table below will help clarify the procedure.

For the purposes of this example the basic reaper is priced at R20, 000 and some possible 'extras' are listed along with their prices. The total value of these hypothetical 'extras' is R7,460 but the researcher tells the farmer he has an equally hypothetical R3,950 or similar sum.

The important thing is that he should have considerably less hypothetical money to spend than the total value of the alternative product features. In this way the farmer is encouraged to reveal his preferences by allowing researchers to observe how he trades one additional benefit off against another.

For example, would he prefer a side rake attachment on a 3 metre head rather than have a transporter trolley on either a standard or 2.5m wide head? The farmer has to be told that any unspent money cannot be retained by him so he should seek the best value-for-money he can get. In cases where the researcher believes that mentioning specific prices might introduce some form of bias into the results, then the index can be used instead.

This is constructed by taking the price of each item over the total of R 7,460 and multiplying by 100. Survey respondents might then be given a maximum of 60 points and then, as before, are asked how they would spend these 60 points. In this crude example the index numbers are not too easy to work with for most respondents, so one would round them as has been done in the adjusted column.

It is the relative and not the absolute value of the items which is important so the precision of the rounding need not overly concern us.

#### The unity-sum-gain technique

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Additional Cost (Rs)** | **Index** | **Adjusted Index** |
| 2.5 wide rather than standard 2m | 2,000 | 27 | 30 |
| Self lubricating chain rather than belt | 200 | 47 | 50 |
| Side rake attachment | 350 | 5 | 10 |
| Polymer heads rather than steel | 250 | 3 | 5 |
| Double rather than single edged cutters | 210 | 2.5 | 5 |
| Transporter trolley for reaper attachment | 650 | 9 | 10 |
| Automatic levelling of table | 300 | 4 | 5 |

#### Non-comparative scales

Continuous rating scales: The respondents are asked to give a rating by placing a mark at the appropriate position on a continuous line.

The scale can be written on card and shown to the respondent during the interview. Two versions of a continuous rating scale are depicted in the figure below.

#### Continuous rating scales



When version B is used, the respondent's score is determined either by dividing the line into as many categories as desired and assigning the respondent a score based on the category into which his/her mark falls, or by measuring the distance, in millimetres or inches, from either end of the scale.

Whichever of these forms of the continuous scale is used, the results are normally analysed as interval scaled. Line marking scale: The line marked scale is typically used to measure perceived similarity differences between products, brands or other objects.

Technically, such a scale is a form of what is termed a semantic differential scale since each end of the scale is labelled with a word/phrase (or semantic) that is opposite in meaning to the other.

Consider the products below which can be used when frying food. In the case of each pair, indicate how similar or different they are in the flavour which they impart to the food. Let’s look at the example below:



For some types of respondent, the line scale is an easier format because they do not find discrete numbers (e.g. 5, 4, 3, 2, 1) best reflect their attitudes/feelings. The line marking scale is a continuous scale.

Itemised rating scales: With an itemised scale, respondents are provided with a scale having numbers and/or brief descriptions associated with each category and are asked to select one of the limited number of categories, ordered in terms of scale position, that best describes the product, brand, company or product attribute being studied. Examples of the itemised rating scale are illustrated in the figure below.



#### Semantic scales

This type of scale makes extensive use of words rather than numbers. Respondents describe their feelings about the products or brands on scales with semantic labels.

When bipolar adjectives are used at the end points of the scales, these are termed semantic differential scales.

The semantic scale and the semantic differential scale are illustrated in the figure below.



#### Likert scales

A Likert scale is what is termed a summated instrument scale. This means that the items making up a Liken scale are summed to produce a total score.

In fact, a Likert scale is a composite of itemised scales. Typically, each scale item will have 5 categories, with scale values ranging from -2 to +2 with 0 as neutral response.

#### This explanation may be clearer from the example in the table below.

#### The Likert scale

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Strongly Agree** | **Agree** | **Neither** | **Disagree** | **Strongly Disagree** |
| If the price of raw materials fell firms would reduce the price of their food products. | 1 | 2 | 3 | 4 | 5 |
| Without government regulation the firms would exploit the consumer. | 1 | 2 | 3 | 4 | 5 |
| Most food companies are so concerned about making profits they do not care about quality. | 1 | 2 | 3 | 4 | 5 |
| The food industry spends a great deal of money making sure that its manufacturing is hygienic. | 1 | 2 | 3 | 4 | 5 |
| Food companies should charge the same price for their products throughout the country | 1 | 2 | 3 | 4 | 5 |

Likert scales are treated as yielding Interval data by the majority of marketing researchers.

The scales which have been described in this chapter are among the most commonly used in marketing research.

Whilst there are a great many more forms which scales can take, if students are familiar with those described in this chapter they will be well equipped to deal with most types of survey problem.

### Questionnaires

No survey can achieve success without a well-designed questionnaire.

Unfortunately, questionnaire design has no theoretical base to guide the marketing researcher in developing a flawless questionnaire.

All the researcher has to guide him/her is a lengthy list of do's and don'ts born out of the experience of other researchers past and present. Hence, questionnaire design is more of an art than a science.

#### The qualities of a good questionnaire

The design of a questionnaire will depend on whether the researcher wishes to collect exploratory information (i.e. qualitative information for the purposes of better understanding or the generation of hypotheses on a subject) or quantitative information (to test specific hypotheses that have previously been generated).

#### Exploratory questionnaires

If the data to be collected is qualitative or is not to be statistically evaluated, it may be that no formal questionnaire is needed.

For example, in interviewing the female head of the household to find out how decisions are made within the family when purchasing breakfast foodstuffs, a formal questionnaire may restrict the discussion and prevent a full exploration of the woman's views and processes.

Instead one might prepare a brief guide, listing perhaps ten major open-ended questions, with appropriate probes/prompts listed under each.

#### Formal standardised questionnaires

If the researcher is looking to test and quantify hypotheses and the data is to be analysed statistically, a formal standardised questionnaire is designed.

Such questionnaires are generally characterised by:

* Prescribed wording and order of questions, to ensure that each respondent receives the same stimuli
* Prescribed definitions or explanations for each question, to ensure interviewers handle questions consistently and can answer respondents' requests for clarification if they occur
* Prescribed response format, to enable rapid completion of the questionnaire during the interviewing process

Given the same task and the same hypotheses, six different people will probably come up with six different questionnaires that differ widely in their choice of questions, line of questioning, use of open-ended questions and length.

There are no hard-and-fast rules about how to design a questionnaire, but there are a number of points that can be borne in mind:

1. A well-designed questionnaire should meet the research objectives. This may seem obvious, but many research surveys omit important aspects due to inadequate preparatory work, and do not adequately probe particular issues due to poor understanding.

To a certain degree some of this is inevitable. Every survey is bound to leave some questions unanswered and provide a need for further research but the objective of good questionnaire design is to 'minimise' these problems.

2. It should obtain the most complete and accurate information possible. The questionnaire designer needs to ensure that respondents fully understand the questions and are not likely to refuse to answer, lie to the interviewer or try to conceal their attitudes.

A good questionnaire is organised and worded to encourage respondents to provide accurate, unbiased and complete information.

3. A well-designed questionnaire should make it easy for respondents to give the necessary information and for the interviewer to record the answer, and it should be arranged so that sound analysis and interpretation are possible.

4. It would keep the interview brief and to the point and be so arranged that the respondent(s) remain interested throughout the interview.

The figure below shows how questionnaire design fits into the overall process of research design. It emphasises that writing of the questionnaire proper should not begin before an exploratory research phase has been completed.



Even after the exploratory phase, two key steps remain to be completed before the task of designing the questionnaire should commence.

The first of these is to articulate the questions that research is intended to address. The second step is to determine the hypotheses around which the questionnaire is to be designed.

It is possible for the piloting exercise to be used to make necessary adjustments to administrative aspects of the study.

This would include, for example, an assessment of the length of time an interview actually takes, in comparison to the planned length of the interview; or, in the same way, the time needed to complete questionnaires.

Moreover, checks can be made on the appropriateness of the timing of the study in relation to contemporary events such as avoiding farm visits during busy harvesting periods.

#### Preliminary decisions in questionnaire design

There are nine steps involved in the development of a questionnaire:

1. Decide the information required.

2. Define the target respondents.

3. Choose the method(s) of reaching your target respondents.

4. Decide on question content.

5. Develop the question wording.

6. Put questions into a meaningful order and format.

7. Check the length of the questionnaire.

8. Pre-test the questionnaire.

9. Develop the final survey form.

#### Deciding on the information required

It should be noted that one does not start by writing questions. The first step is to decide 'what are the things one needs to know from the respondent in order to meet the survey's objectives?'

One may already have an idea about the kind of information to be collected, but additional help can be obtained from secondary data, previous rapid rural appraisals and exploratory research.

In respect of secondary data, the researcher should be aware of what work has been done on the same or similar problems in the past, what factors have not yet been examined, and how the present survey questionnaire can build on what has already been discovered.

Further, a small number of preliminary informal interviews with target respondents will give a glimpse of reality that may help clarify ideas about what information is required.

#### Define the target respondents

At the outset, the researcher must define the population about which he/she wishes to generalise from the sample data to be collected.

For example, in marketing research, researchers often have to decide whether they should cover only existing users of the generic product type or whether to also include non-users.

Secondly, researchers have to draw up a sampling frame. Thirdly, in designing the questionnaire we must take into account factors such as the age, education, etc. of the target respondents.

Choose the method(s) of reaching target respondents

It may seem strange to be suggesting that the method of reaching the intended respondents should constitute part of the questionnaire design process.

However, a moment's reflection is sufficient to conclude that the method of contact will influence not only the questions the researcher is able to ask but the phrasing of those questions.

The main methods available in survey research are:

* Personal interviews
* Group or focus interviews
* Mailed questionnaires
* Telephone interviews

Within this region the first two mentioned are used much more extensively than the second pair. However, each has its advantages and disadvantages.

A general rule is that the more sensitive or personal the information, the more personal the form of data collection should be.

#### Decide on question content

Researchers must always be prepared to ask, "Is this question really needed?" The temptation to include questions without critically evaluating their contribution towards the achievement of the research objectives, as they are specified in the research proposal, is surprisingly strong.

No question should be included unless the data it gives rise to is directly of use in testing one or more of the hypotheses established during the research design.

There are only two occasions when seemingly "redundant" questions might be included:

Opening questions that are easy to answer and which are not perceived as being "threatening", and/or are perceived as being interesting, can greatly assist in gaining the respondent's involvement in the survey and help to establish a rapport.

This, however, should not be an approach that should be overly used. It is almost always the case that questions which are of use in testing hypotheses can also serve the same functions.

"Dummy" questions can disguise the purpose of the survey and/or the sponsorship of a study. For example, if a manufacturer wanted to find out whether its distributors were giving the consumers or end-users of its products a reasonable level of service, the researcher would want to disguise the fact that the distributors' service level was being investigated.

If he/she did not, then rumours would abound that there was something wrong with the distributor.

#### Develop the question wording

Survey questions can be classified into three forms, i.e. closed, open-ended and open response-option questions. So far only the first of these, i.e. closed questions has been discussed.

This type of questioning has a number of important advantages;

* It provides the respondent with an easy method of indicating his answer - he does not have to think about how to articulate his answer.
* It 'prompts' the respondent so that the respondent has to rely less on memory in answering a question.
* Responses can be easily classified, making analysis very straightforward.
* It permits the respondent to specify the answer categories most suitable for their purposes.

#### Putting questions into a meaningful order and format

Opening questions: Opening questions should be easy to answer and not in any way threatening to THE respondents.

The first question is crucial because it is the respondent's first exposure to the interview and sets the tone for the nature of the task to be performed.

If they find the first question difficult to understand, or beyond their knowledge and experience, or embarrassing in some way, they are likely to break off immediately.

If, on the other hand, they find the opening question easy and pleasant to answer, they are encouraged to continue.

Question flow: Questions should flow in some kind of psychological order, so that one leads easily and naturally to the next. Questions on one subject, or one particular aspect of a subject, should be grouped together.

Respondents may feel it disconcerting to keep shifting from one topic to another, or to be asked to return to some subject they thought they gave their opinions about earlier.

Question variety: Respondents become bored quickly and restless when asked similar questions for half an hour or so. It usually improves response, therefore, to vary the respondent's task from time to time.

An open-ended question here and there (even if it is not analysed) may provide much-needed relief from a long series of questions in which respondents have been forced to limit their replies to pre-coded categories.

Questions involving showing cards/pictures to respondents can help vary the pace and increase interest.

#### Closing questions

It is natural for a respondent to become increasingly indifferent to the questionnaire as it nears the end. Because of impatience or fatigue, he may give careless answers to the later questions.

Those questions, therefore, that are of special importance should, if possible, be included in the earlier part of the questionnaire.

Potentially sensitive questions should be left to the end, to avoid respondents cutting off the interview before important information is collected.

In developing the questionnaire the researcher should pay particular attention to the presentation and layout of the interview form itself. The interviewer's task needs to be made as straight-forward as possible.

* Questions should be clearly worded and response options clearly identified.
* Prescribed definitions and explanations should be provided. This ensures that the questions are handled consistently by all interviewers and that during the interview process the interviewer can answer/clarify respondents' queries.

Ample writing space should be allowed to record open-ended answers, and to cater for differences in handwriting between interviewers.

#### Physical appearance of the questionnaire

The physical appearance of a questionnaire can have a significant effect upon both the quantity and quality of marketing data obtained. The quantity of data is a function of the response rate. Ill-designed questionnaires can give an impression of complexity, medium and too big a time commitment.

Data quality can also be affected by the physical appearance of the questionnaire with unnecessarily confusing layouts making it more difficult for interviewers, or respondents in the case of self-completion questionnaires, to complete this task accurately. Attention to just a few basic details can have a disproportionately advantageous impact on the data obtained through a questionnaire.

#### Use of booklets

 The use of booklets, in the place of loose or stapled sheets of paper, make it easier for interviewer or respondent to progress through the document. Moreover, fewer pages tend to get lost.

#### Simple, clear formats

 The clarity of questionnaire presentation can also help to improve the ease with which interviewers or respondents are able to complete a questionnaire.

#### Creative use of space and typeface

 In their anxiety to reduce the number of pages of a questionnaire these is a tendency to put too much information on a page. This is counter-productive since it gives the questionnaire the appearance of being complicated. Questionnaires that make use of blank space appear easier to use, enjoy higher response rates and contain fewer errors when completed.

#### Use of colour coding

 Colour coding can help in the administration of questionnaires. It is often the case that several types of respondents are included within a single survey (e.g. wholesalers and retailers). Printing the questionnaires on two different colours of paper can make the handling easier.

#### Interviewer instructions

 Interviewer instructions should be placed alongside the questions to which they pertain. Instructions on where the interviewers should probe for more information or how replies should be recorded are placed after the question. In general it is best for a questionnaire to be as short as possible.

A long questionnaire leads to a long interview and this is open to the dangers of boredom on the part of the respondent (and poorly considered, hurried answers), interruptions by third parties and greater costs in terms of interviewing time and resources. In a rural situation an interview should not last longer than 30-45 minutes.

#### Piloting the questionnaires

Even after the researcher has proceeded along the lines suggested, the draft questionnaire is a product evolved by one or two minds only.

Until it has actually been used in interviews and with respondents, it is impossible to say whether it is going to achieve the desired results.

For this reason it is necessary to pre-test the questionnaire before it is used in a full-scale survey, to identify any mistakes that need correcting.

The purpose of pre-testing the questionnaire is to determine:

* Whether the questions as they are worded will achieve the desired results
* Whether the questions have been placed in the best order
* Whether the questions are understood by all classes of respondent
* Whether additional or specifying questions are needed or whether some questions should be eliminated
* Whether the instructions to interviewers are adequate.

Usually a small number of respondents are selected for the pre-test. The respondents selected for the pilot survey should be broadly representative of the type of respondent to be interviewed in the main survey.

If the questionnaire has been subjected to a thorough pilot test, the final form of the questions and questionnaire will have evolved into its final form. All that remains to be done is the mechanical process of lying out and setting up the questionnaire in its final form.

This will involve grouping and sequencing questions into an appropriate order, numbering questions, and inserting interviewer instructions.

# REPORTING THE INFORMATION

#### ***Specific Outcome 3***

Combine and disseminate information to marketing decision makers according to organisational policies.

#### ***Assessment Criteria***

* Information flow is timely and provides sufficient data to make decisions on its effectiveness.
* The information processed is valid and relevant to the defined problem requirements.
* The user is able to store and manage the information.
* The data processed is validated for accuracy.
* The process that is used to evaluate the data enables decision makers to reach appropriate conclusions.
* The processing of data for decision makers is completed within the agreed time frames and budget.

#### ***Specific Outcome 4***

Monitor and review marketing information processes.

#### ***Assessment Criteria***

* Data collection methods are reviewed for cost effectiveness.
* Monitoring identified information processing problems and allows for remedial action to be implemented.
* Review procedures ensure opportunities to enhance information flow and processes.
* Enhanced information flow systems and processes that are identified for improvement are compatible with organisational marketing requirements.

The results of marketing research must be effectively communicated to management. Presenting the results of a marketing research study to management generally involves a formal written report as well as an oral presentation. The report and presentation are extremely important.

**First**, because the results of marketing research are often intangible (after the study has been completed and a decision is made there is very little physical evidence of the resources, such as time and effort, that went into the project), the written report is usually the only documentation of the project.

**Second**, the written report and the oral presentation are typically the only aspect of the study that marketing executives are exposed to, and consequently the overall evaluation of the research project rests on how well this information is communicated.

**Third**, since the written research report and oral presentation are typically the responsibility of the marketing research supplier, the communication effectiveness and usefulness of the information provided plays a crucial role in determining whether that particular supplier will be used in the future.

Every person has a different style of writing. There is not really one right style for a report, but there are some basic principles for writing a research report clearly.

Preparing a research report involves other activities besides writing; in fact, writing is actually the last step in the preparation process.

Before writing can take place, the results of the research project must be fully understood and thought must be given to what the report will say.

Thus, preparing a research report involves three steps: understanding, organising and writing. The general guidelines that should be followed for any report or research paper are as follows:

**Consider the audience:** The information resulting from the study is ultimately of importance to marketing managers, who will use the results to make decisions. Thus, the report has to be understood by them; the report should not be too technical and not too much jargon should be used.

This is a particular difficulty when reporting the results of statistical analysis where there is a high probability that few, if any, of the target audience have a grasp of statistical concepts.

Hence, for example, there is a need to translate such terms as standard deviation, significance level, confidence interval etc. into everyday language. This is sometimes not an easy task but it may be the case that researchers who find it impossible do not themselves have a sufficiently good grasp of the statistical methods they have been using.

Qualitative research also presents difficulties. The behavioural sciences have their own vocabulary, much of which is not encountered in everyday speech. Examples include: cognitive dissonance, evoked set, perception, needs versus wants, self-actualisation.

It should be noted that these are extreme examples; many words, phrases and concepts used a very precise way by behavioural scientists are also present in everyday speech but often in a less precise or different way. This also presents opportunities for misunderstandings.

**Be concise, but precise:** On the one hand, a written report should be complete in the sense that it stands by itself and that no additional clarification is needed.

On the other hand, the report must be concise and must focus on the critical elements of the project and must exclude unimportant issues.

There is a great temptation, on the part of inexperienced researchers, to seek to convey all that they did in order to obtain information and to complete the research.

This is done almost as if the researcher is afraid that the audience will not otherwise appreciate the time, effort and intellectual difficulties involved.

What the researcher has to come to realise is that he/she will be judged by the contribution towards solving the marketing problem and not by the elegance or effort involved in the research methodology.

**Understand the results and drawing conclusions:** The managers who read the report are expecting to see interpretive conclusions in the report. The researcher must therefore understand the results and be able to interpret these.

Simply reiterating facts will not do, and the researcher must ask him/herself all the time "So what?"; what are the implications. If the researcher is comparing the client's product with that of a competitor, for example, and reports that 60 percent of respondents preferred brand A to brand B, then this is a description of the results and not an interpretation of them.

Such a statement does not answer the 'So what?' question.

### The following outline is the suggested format for writing the research report:

· Title page

· Summary of findings

· Table of contents

· List of tables

· List of figures

#### Introduction

· Background to the research problem

· Objectives

· Hypotheses

### Methodology-Data collection

· Sample and sampling method

· Statistical or qualitative methods used for data analysis

· Sample description

#### Findings

· Results, interpretation and conclusions.

The summary of findings is perhaps the most important component of the written report, since many of the management team who are to receive a copy of the report will only read this section.

The summary of findings is usually put right after the title page, or is bound separately and presented together with the report.

The introduction should describe the background of the study and the details of the research problem. Following that, automatically the broad aim of the research can be specified, which is then translated into a number of specific objectives.

Furthermore, the hypotheses that are to be tested in the research are stated in this section. In the methodology chapter the sampling methods and procedures are described, as well as the different statistical methods that are used for data analysis.

Finally, the sample is described, giving the overall statistics, usually consisting of frequency counts for the various sample characteristics..

Once the sample has been described, the main findings are to be presented in such a way that all objectives of the study are achieved and the hypotheses are tested. As mentioned before, it is essential that the main findings are well interpreted and conclusions are drawn wherever possible.

**Data presentation**

Easy-to-understand tables and graphics will greatly enhance the readability of the written research report.

As a general rule, all tables and figures should contain:

1. Identification number corresponding to the list of tables and the list of figures

2. A title that conveys the content of the table or figure, also corresponding to the list of tables and the list of figures, and

3. Appropriate column labels and row labels for tables, and figure legends defining specific elements in the figure.

There are a number of ways to produce tables and figures. When typing a report on a typewriter or word-processor, it is sometimes easiest to type a table out by hand.

However, when complicated tables have to be produced, it is advisable to use spreadsheet software like Lotus 123 or Excel.