

Research objective:

5. To use empirical research to establish whether a number of South African companies listed on the Johannesburg Stock Exchange (JSE):
 - follow an *inclusive* (stakeholder) approach to financial communication;
 - follow an *integrated* approach (in terms of management and organisation) to financial communication.

CHAPTER 6

Research methodology

Exploratory research rarely yields definitive answers. It addresses the “what” question: “What is this social activity really about?” It is difficult to conduct because there are few guidelines to follow. Everything about a topic is potentially important. The steps are not well defined and the direction of inquiry changes frequently. - Neuman (2000:21)

6.1 Introduction

The purpose of this chapter is to describe the research methodology used in this study. Mouton (1998:39-40) makes it clear that the choice of methodology depends on the research problem and research objectives. It is therefore appropriate to restate the research problem and objectives that guide this study, as stated in Chapter 1:

Research problem:

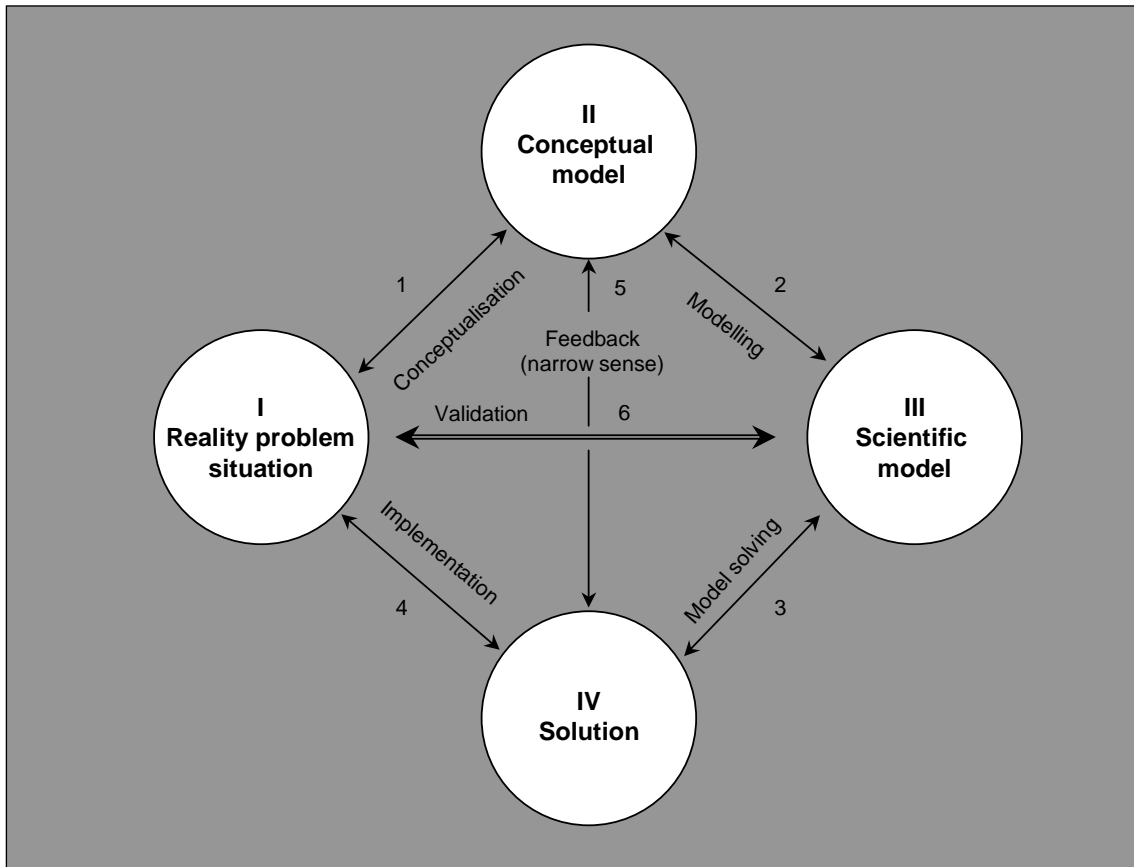
Confusion exists regarding the nature, management and organisation of financial communication.

Research objectives:

1. To describe the current approach to financial communication, from a theoretical perspective.
2. To identify the shortcomings of the current approach to financial communication, from a theoretical perspective.
3. To provide a theoretical justification for an *inclusive* (stakeholder) approach to financial communication.
4. To develop a conceptual model, based on an *inclusive* and *integrated* approach to financial communication.
5. To use empirical research to establish whether a number of South African companies listed on the Johannesburg Stock Exchange (JSE):
 - follow an *inclusive* (stakeholder) approach to financial communication;
 - follow an *integrated* approach (in terms of management and organisation) to financial communication.
6. To identify similarities and/or differences between the results of this study and results of three similar studies conducted previously in the USA, United Kingdom and Europe.

In Chapter 1, the whole systems model of problem solving of Mitroff *et al.* (1974:47) is used to indicate the scope of this study. For the sake of clarity, the model is again depicted in Figure 6.1.

Figure 6.1 The 1974 Mitroff *et al.* model revisited



Source: Mitroff *et al.* (1974:48)

Koornhof (2001:260) used the Mitroff *et al.* (1974) model in an Accounting thesis on the concept of “flexibility”, and found it useful in providing legitimacy to an exploratory and non-formal research topic. It is noted in Chapter 1 that the emphasis of this study (which is also exploratory) is on the current approach to financial communication in terms of definition, management and organisation. According to the Mitroff *et al.* (1974) model, this involves describing a reality problem situation (Circle I) and developing a conceptual model (activity 1 and Circle II).

In Chapters 2 and 3 the reality problem situation is described by means of a review of public relations, investor relations and accounting literature. The problem situation entails three interrelated shortcomings of the current approach to financial communication:

- a lack of integration;
- the domination of the Financial (Accounting) department and its executive; and
- a narrow focus on the financial community alone.

In Chapter 4 a theoretical justification is provided for an inclusive (stakeholder) approach to financial communication. This is done by a review of corporate governance, corporate social responsibility, stakeholder management and public relations as relationship management literature. In Chapter 5, a conceptual model is developed, based on the content of Chapters 2, 3 and 4. Theoretically speaking, Circle I and Circle II of the Mitroff *et al.* (1974) model have therefore been covered.

The purpose of the empirical component of this study is to supplement the theoretical component. Survey research is therefore used to:

- investigate to what extent the reality problem situation, as described in theory, exists in practice (Circle I);
- determine whether there is evidence of an inclusive and integrated approach to financial communication, as proposed in the conceptual model (Circle II).

It is important to note that the purpose is not to generalise the findings of the research to the entire population of South African companies listed on the JSE.

This chapter is dedicated to a description of the methodology used in conducting the survey research. It is important to structure this account according to a sound theoretical framework. In the section that follows, various perspectives on research methodology are used to construct such a framework.

6.2 Perspectives on research methodology

The term “research methodology” is commonly used, but what exactly is meant by it? Does it refer to approaches, methods, techniques or instruments, or “all of the above”? Mouton (1998:37) distinguishes between three levels of the methodological dimension of research, namely methodological paradigms, research methods and research techniques. Methodological paradigms, the most abstract level, include the distinction between qualitative and quantitative research. Research methods are those that are used in certain stages of the research process, for example sampling, data collection and data analysis. Research techniques represent the most concrete level of the methodological dimension and include specific techniques related to sampling, data collection and data analysis. This distinction between paradigms, methods and techniques is helpful in forming a better understanding of the concept “research methodology”. The three levels are set out in Table 6.1.

Table 6.1 Three levels in the methodological dimension

LEVEL	EXAMPLE
Methodological paradigms	Qualitative or quantitative research
Research methods	Sampling; data collection; data analysis
Research techniques	Sampling techniques; data collection techniques; data analysis techniques

Adapted from: Mouton (1998:37)

Other terms related to research methodology are “research strategy” and “research design”. Research strategy guides the research effort by defining the context within which it will be conducted. It also provides the link between the research objectives and research activities. Research strategy is partly derived from the methodological paradigm - qualitative or quantitative - that fits a particular research problem. Research design, on the other hand, is defined as a plan of how a research project will be

conducted, specifying who or what is involved, and where and when it will take place (Du Plooy, 2001:81). In other words, research strategy indicates which “direction” will be taken, while research design indicates what needs to be done while heading in that specific direction.

In this chapter, a combination of Mouton’s (1998) three methodological levels and the concepts “research strategy” and “research design” is used to describe the methodology used in this study, as well as in similar studies conducted previously. The following three main headings are used: research strategy, research design, and research methods and techniques.

In the discussion of research *strategy*, reference is made to qualitative versus quantitative research, exploratory versus formal research and descriptive versus causal research. Du Plooy (2001:49) refers to research *design* as the *methods* and *techniques* used to collect, analyse and interpret data. However, before one can decide which particular methods and techniques to use, aspects such as the time dimension, degree of control over variables and nature of the research environment need to be clarified. Cooper and Schindler (2003:147) describe these aspects as descriptors of research design. Therefore, the discussion of research *design* precedes the discussion of research *methods* and *techniques*. Furthermore, Mouton (1998:36) distinguishes between research methods and research techniques, but also remarks that the distinction is one of degree and scope. Thus, research methods and techniques are discussed under one heading.

In Table 6.2, a more detailed framework of the above-mentioned levels and aspects of research methodology is provided. In the sections that follow, only those aspects relevant to this study, as well as similar studies conducted previously, are discussed. The aspects applicable to this study are highlighted in bold in Table 6.2.

Table 6.2 A framework of the levels and aspects of research methodology

RESEARCH STRATEGY	RESEARCH DESIGN	RESEARCH METHODS AND TECHNIQUES	
Qualitative or quantitative research (Paradigms according to Mouton, 1998:37)	Control over variables <ul style="list-style-type: none"> ▪ Experimental ▪ Ex post facto 	Sampling design <ul style="list-style-type: none"> ▪ Unit of analysis ▪ Population ▪ Target population ▪ Sampling frame 	Sampling techniques <ul style="list-style-type: none"> ▪ Probability (simple random; systematic; stratified; cluster; sequential or multiphase) ▪ Nonprobability (convenience; purposive; snowball)
Exploratory or formal research	Time dimension <ul style="list-style-type: none"> ▪ Cross-sectional ▪ Longitudinal 	Data collection	Data collection techniques <ul style="list-style-type: none"> ▪ Quantitative data collection (e.g. experimental; survey) ▪ Qualitative data collection (e.g. field observation; historical research; content analysis)
Descriptive or causal research	Research environment <ul style="list-style-type: none"> ▪ Field ▪ Laboratory ▪ Simulation 	Data analysis	Data analysis techniques <ul style="list-style-type: none"> ▪ Quantitative data analysis (descriptive statistics; inferential statistics) ▪ Qualitative data analysis (e.g. grounded theory, discourse analysis; conversation analysis)
	Perceptions of participants <ul style="list-style-type: none"> ▪ Actual routine ▪ Modified routine 		

Compiled from: Cooper and Schindler (2003), Mouton (1998) and Neuman (2000)

6.3 Methodology used in previous research

Various studies, similar to this one, have been conducted previously. In Chapter 2, the results of these studies are reported briefly. The emphasis of this section, however, is on the research methodology used in the three most recent studies, namely those of Petersen and Martin (1996), Marston (1996) and Marston and Straker (2001). These studies have been chosen for three main reasons. In the first place, the results of all three studies have been reported in articles published in academic journals. The credibility of the research methodology and results can therefore not be questioned.

Secondly, the studies were conducted in different countries or continents. The study of Petersen and Martin (1996) was conducted in the state of Florida, USA. Marston (1996) conducted her study in the United Kingdom, while Marston and Straker (2001) conducted their research in continental Europe, excluding the UK. In other words, the results of these studies provide perspectives from different parts of the world.

In the third place, the objectives of all three studies were similar to the objectives of this one. The study of Marston (1996) focused on the management and organisation of the investor relations function by large UK companies. The emphasis of Petersen and Martin's (1996) study was on CEO perceptions of investor relations, and by implication the management and organisation thereof. Marston and Straker (2001) investigated the importance of investor relations, in terms of the existence and position of the investor relations function in the organisational hierarchy.

It is interesting to note that the research strategies and research design of all three studies were exactly the same. For example, all three studies used quantitative, exploratory and descriptive research. Table 6.3 summarises the research strategies and research design used by Marston (1996), Marston and Straker (2001) and Petersen and Martin (1996).

Table 6.3 A summary of the research strategies and design used in three previous studies

STUDY	RESEARCH STRATEGY	RESEARCH DESIGN
Marston (1996) <ul style="list-style-type: none"> ▪ Conducted in 1991 in the UK ▪ Investigated the organisation of the investor relations function 	<ul style="list-style-type: none"> ▪ Quantitative ▪ Exploratory ▪ Descriptive 	<ul style="list-style-type: none"> ▪ Ex post facto ▪ Cross-sectional ▪ Field research
Petersen and Martin (1996) <ul style="list-style-type: none"> ▪ Conducted in 1994 in the USA ▪ Investigated CEO perceptions of investor relations 	<ul style="list-style-type: none"> ▪ Quantitative ▪ Exploratory ▪ Descriptive 	<ul style="list-style-type: none"> ▪ Ex post facto ▪ Cross-sectional ▪ Field research
Marston and Straker (2001) <ul style="list-style-type: none"> ▪ Conducted in 1998 in Europe ▪ Investigated the importance of investor relations 	<ul style="list-style-type: none"> ▪ Quantitative ▪ Exploratory ▪ Descriptive 	<ul style="list-style-type: none"> ▪ Ex post facto ▪ Cross-sectional ▪ Field research

Compiled from: Marston (1996), Marston and Straker (2001) and Petersen and Martin (1996)

Research methods and techniques represent the most concrete level of research methodology, according to Mouton (1998:37). Therefore, the research methods and techniques used in the studies of Marston (1996), Marston and Straker (2001) and Petersen and Martin (1996) are summarised separately in Table 6.4. Note that the methods and techniques used were very similar. The studies only differed in terms of sample size and response rate.

Table 6.4 A summary of the research methods and techniques used in three previous studies

STUDY	SAMPLING DESIGN	DATA COLLECTION	DATA ANALYSIS
Petersen and Martin (1996)	<ul style="list-style-type: none"> ▪ Target population: 250 largest nonbanking companies in Florida, USA ▪ Non-probability purposive sampling ▪ Criterion: not stated 	<ul style="list-style-type: none"> ▪ Postal questionnaire survey ▪ Response rate: 31% 	<ul style="list-style-type: none"> ▪ Descriptive statistics
Marston (1996)	<ul style="list-style-type: none"> ▪ Target population: 500 largest UK companies ▪ Non-probability purposive sampling ▪ Criterion: market capitalisation 	<ul style="list-style-type: none"> ▪ Postal questionnaire survey ▪ Response rate: 62% 	<ul style="list-style-type: none"> ▪ Descriptive statistics
Marston and Straker (2001)	<ul style="list-style-type: none"> ▪ Target population: 80 largest European companies ▪ Non-probability purposive sampling ▪ Criterion: market capitalisation 	<ul style="list-style-type: none"> ▪ Postal questionnaire survey ▪ Response rate: 59% 	<ul style="list-style-type: none"> ▪ Descriptive statistics

Compiled from: Marston (1996), Marston and Straker (2001) and Petersen and Martin (1996)

The objectives of the three studies described above are similar to the objectives of this study. The emphasis of this study is, amongst other things, on the current approach to the management and organisation of financial communication. However, none of the three studies conducted previously have attempted to identify the shortcomings of the approaches reflected in the research results. Neither have they focused on the importance of financial communication with various stakeholder groups. The purpose of this study is therefore not to *replicate* any of the studies discussed above. Rather, a *similar* research strategy and design, and therefore similar methods and techniques, are used. These are discussed in detail in the remainder of this chapter.

6.4 Research strategy

As noted before, a particular research strategy is partly derived from what Mouton (1998:37) calls the methodological paradigm (qualitative or quantitative) that fits the research question. In addition, research strategy can also be described in terms of whether the research project is exploratory or formal, descriptive or causal.

6.4.1 Quantitative research

The debate between proponents of the qualitative and quantitative research paradigms is an old but unresolved one. Neuman (2000:16) and Mouton (1998:37) note that each is characterised by a certain logic or approach to social science, accompanied by collections of certain research methods. In Table 6.5, the views of Du Plooy (2001:82-84), Leedy (1997:106) and Neuman (2000:16), regarding the characteristics of qualitative and quantitative research, are synthesised. The differences between these paradigms are highlighted by referring to the purpose and nature of research, the type of reasoning used, methods of data collection and analysis and the way in which findings are communicated.

Table 6.5 Characteristics of qualitative and quantitative research

QUALITATIVE RESEARCH	QUANTITATIVE RESEARCH
PURPOSE	
<ul style="list-style-type: none"> ▪ To describe and explain (behaviours, trends or relations) ▪ To explore and interpret ▪ To build theory ▪ To explore areas characterised by no/limited prior research ▪ Process-orientated ▪ Construct social reality 	<ul style="list-style-type: none"> ▪ To explain and predict (quantities, degrees or relations) ▪ To confirm and validate ▪ To test theory ▪ To generalise from a sample to a population ▪ Outcome-orientated ▪ Measure objective facts
NATURE	
<ul style="list-style-type: none"> ▪ Holistic ▪ Unknown variables ▪ Flexible guidelines ▪ Emergent design ▪ Context-bound ▪ Personal view/Values are present ▪ Authenticity is key 	<ul style="list-style-type: none"> ▪ Focused ▪ Known variables ▪ Established guidelines ▪ Static design ▪ Context-free ▪ Detached view/Value free ▪ Reliability is key
DATA COLLECTION	
<ul style="list-style-type: none"> ▪ Informative, small sample ▪ Observations, interviews 	<ul style="list-style-type: none"> ▪ Representative, large sample ▪ Standardised instruments (Surveys and experimental designs)
REASONING	
<ul style="list-style-type: none"> ▪ Usually inductive analysis 	<ul style="list-style-type: none"> ▪ Usually deductive analysis
DATA ANALYSIS	
<ul style="list-style-type: none"> ▪ Content analysis 	<ul style="list-style-type: none"> ▪ Descriptive and inferential statistics
COMMUNICATION OF FINDINGS	
<ul style="list-style-type: none"> ▪ Words ▪ Narratives, individual quotes ▪ Personal voice, literary style 	<ul style="list-style-type: none"> ▪ Numbers ▪ Statistics, aggregated data ▪ Formal voice, scientific style

Compiled from: Du Plooy (2001:82-84), Leedy (1997:106) and Neuman (2000:16)

Mouton (1998:38;40) notes that the qualitative and quantitative paradigms are seen to be incompatible, but concludes that there is not necessarily a “real” conflict between them. Neuman (2000:16) also remarks that there is much overlap between the type of data and style of research used in qualitative and quantitative research.

When one considers the characteristics of qualitative and quantitative research in Table 6.5, it seems as if qualitative research is more appropriate for the purposes of this study. In fact, a qualitative research strategy was initially contemplated. Research about the management and organisation of financial communication in South Africa is limited. An exploratory study (see the section that follows this one) warrants a qualitative approach. Qualitative research usually yields in-depth information.

On the other hand, Cooper and Schindler (2003:151) note that exploratory studies can use qualitative as well as quantitative techniques. The objectives of the empirical component of this study, for instance, is not to obtain in-depth information, but rather to gain a wide range of perspectives on the management and organisation of financial communication. Thus, a quantitative strategy, rather than a qualitative one, is used.

6.4.2 Exploratory research

According to Cooper and Schindler (2003:146) research studies can be classified as being exploratory or formal, depending on the degree of research question crystallisation. Exploratory studies are typically used when very little previous research has been conducted on a specific topic (Mouton, 1998:102). The objectives of exploratory studies therefore include collecting new data, developing hypotheses or questions for further research, clarifying concepts and establishing research priorities (Cooper & Schindler, 2003:146; Neuman, 2000:21). Exploratory research sets the tone for formal research, which is more systematic and extensive (Neuman, 2000:21).

Various authors have noted the lack of academic research in financial communication, especially in investor relations (Farragher *et al.*, 1994:403; Marston, 1996:478; Marston & Straker, 2001:83; Wilson, 1980:10). Note the time span from 1980 to 2001 - it seems that little progress has been made in at least 21 years. It is also important to note that previous studies about the management and organisation of investor relations have been conducted from either an accounting, public relations or investor relations perspective, not from an interdisciplinary perspective.

One of the main objectives of this study is to describe the current approach to the management and organisation of financial communication, both from an investor relations perspective and an accounting perspective. In other words, an interdisciplinary approach is followed. A natural result of this is the identification of shortcomings of the current approach, in order to identify priorities for future research.

6.4.3 Descriptive research

The objectives of a research study determine whether it is descriptive or causal in nature (Cooper & Schindler, 2003:149). Descriptive research attempts to answer questions such as who, what, where, when or how much. Causal research on the other hand, focuses on relationships between events - answering the "why-question".

As noted in the introduction of this chapter, the main objectives of this study are to describe the current approach to financial communication, and to develop a conceptual model for an inclusive and integrated approach to financial communication. An inclusive approach is understood as financial communication directed at a wide range of relevant stakeholders. An integrated approach relates to the management and organisation of financial communication. Therefore, the objectives of this study attempt to answers questions of "who" and "how". The study is therefore descriptive.

6.5 Research design

Research design encompasses factors such as researcher control of variables, time dimension, research environment and participants' perceptions (Cooper & Schindler, 2003:147). In the sections that follow, these factors are described, as they apply to this study.

6.5.1 Control of variables

According to Leedy (1997:189), an ex post facto research design aims to study a specific situation or phenomenon *as it is*. No attempt is made to manipulate any of the variables in the situation. Cooper and Schindler (2003:149) remark that researchers should avoid manipulating variables, by adhering strictly to sampling procedures. Otherwise bias will be introduced. This is in contrast to experimental designs, where variables are deliberately manipulated in order to observe cause and effect relationships. The main objective of this study is to describe the *current* approach to financial communication. It is therefore based on an ex post facto research design.

6.5.2 Time dimension

Time dimension refers to the time period over which a research project is conducted, and whether the study is repeated over intervals or not. A cross-sectional study is carried out only once and provides a "snapshot" view of a situation or phenomenon. A longitudinal study is one that is repeated over a certain period of time, in order to identify trends or track changes (Cooper & Schindler, 2003:149).

The objective of this study is to describe a current situation, not to observe trends or changes. Although future studies might be undertaken to establish whether changes have occurred in the approach to financial communication, the danger of bias exists when data is collected a second or third time from the same respondents. Therefore, a cross-sectional time dimension is appropriate for this study.

6.5.3 Research environment

Research can be undertaken either under actual environmental, laboratory or simulated conditions. Research undertaken in the actual environment is known as field research (Cooper & Schindler, 2003:150). This study is undertaken under actual environmental conditions and can therefore be classified as field research.

6.5.4 Perceptions of participants

Cooper and Schindler (2003:151) warn that when people involved in a research study perceive that research is being conducted, they might behave less naturally. Three levels of perception are identified. Participants might perceive 1) no deviations from everyday routines, 2) deviations, but as unrelated to the researcher, or 3) deviations as induced by the researcher. The last level is referred to as “modified routine”.

Du Plooy (2001:85) suggests that, when doing a cross-sectional study, the unobtrusiveness of the measuring instrument and/or the researcher’s behaviour can contribute to internal validity. However, in the case of questionnaire surveys, this is not possible. Respondents or subjects are aware that research is being conducted. It is therefore important to make provision for the possibility that subjects’ responses might have been influenced by this awareness, when analysing the data and discussing the results. A self-administered questionnaire was used in this study. Therefore, the level of respondents’ awareness can be described as “modified routine”.

6.6 Research methods and techniques

In this section the more concrete levels of research methodology are discussed. According to Mouton (1998:37), these include sampling, data collection and data analysis methods and techniques. Questionnaire design and the pilot test, which can be seen as part of the process of data collection, are discussed under separate headings.

6.6.1 Sampling design

A central component of research is the gathering of data about “something”. Sampling design refers to a series of decisions regarding the “something” that will be studied, as well as from what or whom data about this “something” will be obtained. In more scientific terms, sampling design involves the identification of the unit of analysis, the target population and sampling frame, as well as the appropriate sampling technique(s).

- **Unit of analysis**

Mouton (1998:91) defines the unit of analysis as the “object” or “entity” being studied by researchers. He identifies seven broad types, namely individuals, organisations, institutions, collectives, social objects, social actions or events and interventions. The particular type of unit of analysis depends on the research topic and research questions (Neuman, 2000:132). However, the unit of analysis and the *data source* are easily confused. Mouton (1998:92) observes that in some cases the unit of analysis and data source are identical, while they differ in other cases. One way to distinguish between the two is to remember that the unit of analysis is that to which a researcher’s *conclusions* ought to apply, while the data source is that which has to be explored or investigated in order to gather information *about* the unit of analysis.

The unit of analysis of this study is what Mouton (1998:48-49) refers to as formal organisations, defined as social units that co-ordinate the activities of their members, according to specific rules and duties. One might be tempted to think that individuals are the unit of analysis of this study. However, the unit of analysis is derived from the following research objective:

To use empirical research to establish whether a number of South African companies listed on the Johannesburg Stock Exchange (JSE):

- follow an *inclusive* (stakeholder) approach to financial communication;
- follow an *integrated* approach (in terms of management and organisation) to financial communication.

Formal organisations (listed companies in South Africa) are therefore the unit of analysis of this study, while individuals (directors and senior managers) are the *data sources*, as organisations cannot “speak for themselves”.

- **Target population**

According to Mouton (1998:135), defining the population involves two steps: identification of the target population, and construction of the sampling frame. Du Plooy (2001:100) distinguishes between the population and the target population in the following way: the population is all possible units of analysis, while the target population is the population to which the findings will be generalised. Thus, the population for this study includes all formal organisations, while the target population only includes companies listed on the Johannesburg Stock Exchange (JSE).

It has been noted that the objective of this study is not to generalise the findings to the target population. Although the empirical component of the study is quantitative in nature, the study as a whole is exploratory in nature. This is not necessarily problematic in terms of the definition of the concept “target population”. For the purposes of this study, “target population” is understood as those units of analysis that are applicable in terms of the research problem and objectives.

- **Sampling frame**

The sampling frame can be described as a demarcation of the target population. The sampling frame is the list of cases or elements from which the sample is actually drawn (Cooper & Schindler, 2003:188). Although the sampling frame should ideally include all members of the target population, it is not always practically possible. For example, existing or available lists of members of the target population might be outdated.

It has been noted that the target population for this study consists of companies listed on the JSE. The list used is the one compiled for the 2002 Financial Mail Special Survey of Top Companies. Companies on the list are ranked based on market capitalisation, as on the last trading day of February 2002 (Financial Mail, 2002:24). A company's market capitalisation is calculated by multiplying the number of issued ordinary shares with the share price at a given point in time. Market capitalisation is an indication of the value that investors give to a company (Finansies & Tegniek, 2002:9).

The Financial Mail Special Survey is published annually at the end of June. Since the sampling frame for this study was constructed during February 2003, the more recent 2003 survey could not be used. For the purposes of this study, companies which have been delisted since the last trading day of February 2002 have been left out, while newly listed companies have not been included. Furthermore, companies that are listed on the JSE, but with head offices located in countries outside South Africa, have also been removed from the list. The rationale behind this decision is that the purpose of the empirical component of the study is to gain a truly South African perspective on the approach to financial communication. In order to increase the sample size to 300, companies ranked beyond 300, according to the Financial Mail survey, were included.

- **Sampling technique**

Du Plooy (2001: 100) describes sampling as a rigorous procedure of selecting units of analysis from a larger population. There are several reasons why samples are drawn, rather than investigating the whole population (Cooper & Schindler, 2003:179). In the first place, it is usually cheaper and less time consuming to use a sample. Besides these economic advantages, the quality of a study can be improved, as the researcher has more control over data collection and analysis.

As with all the other components of a research design, the choice of a specific sampling technique is guided by the research problem and objectives. The first step is to decide whether to use probability or nonprobability sampling. In the case of probability sampling, each member of the population has a known nonzero chance of being selected (Cooper & Schindler, 2003:183). Nonprobability sampling, on the other hand, is subjective and each member of the population does not have a nonzero chance of being included. If the objective of a research project is to generalise the findings to the population, probability sampling is the logical choice. However, if the study is exploratory in nature, with less concern about the sample's representativeness of the population, nonprobability sampling is appropriate. The next step is to select a specific probability or nonprobability sampling technique.

As this study is exploratory in nature, the emphasis is not so much on generalisation, but rather on gathering preliminary information about how a number of South African companies approach financial communication. Nonprobability sampling has therefore been a natural choice. Purposive sampling, and more specifically judgement sampling, has been chosen as sampling technique. By using purposive sampling, the researcher selects elements of the population with a specific purpose in mind. These elements, or cases, are usually especially informative (Neuman, 2000:198). Furthermore, using judgement sampling, the researcher selects sample members in order to conform to a certain criterion (Cooper & Schindler, 2003:201).

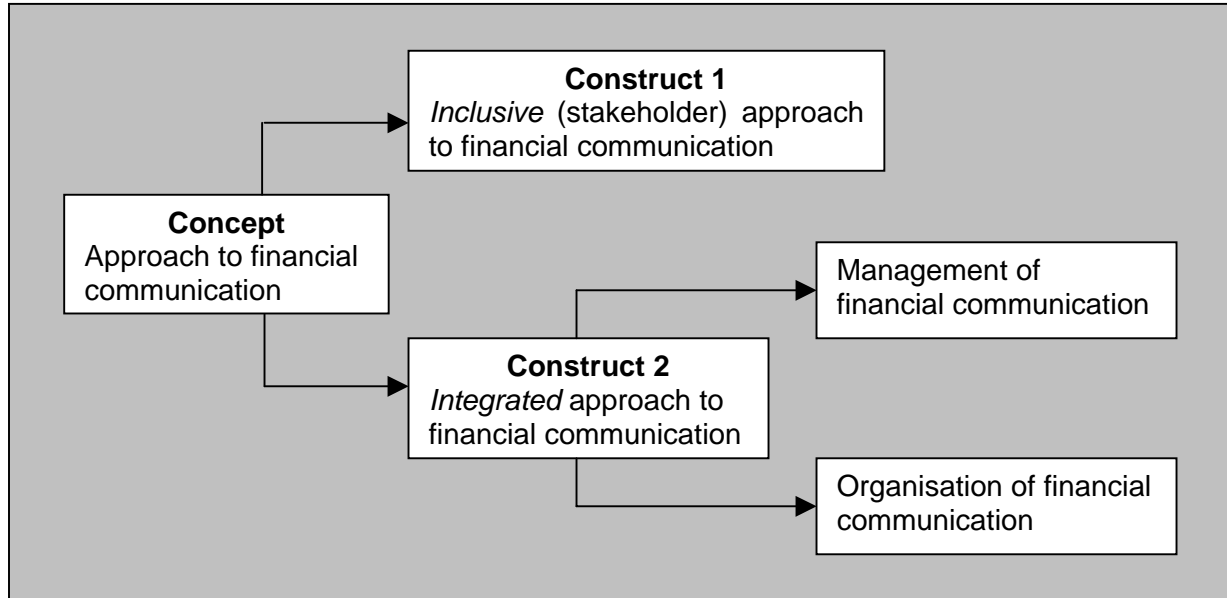
In a 1991 study, Marston (1996) investigated how the top 500 companies in the United Kingdom (ranked by market capitalisation), organised the investor relations function. Market capitalisation was identified as the most important explanatory variable for the appointment of an Investor Relations Officer (Marston, 1996:485). A similar study conducted by Marston and Straker (2001:84) also used market capitalisation as criterion for the inclusion of the top 80 European companies in the sample. The objectives of this study are similar to the studies conducted by Marston (1996) and Marston and Straker (2001). Therefore, the sample for this study consists of the 300 largest companies listed on the JSE, with market capitalisation as criterion for selection.

The sample size constitutes roughly 50% of the population (all companies listed on the JSE). The reason why a large sample has been drawn is that the data collection method used in this study (questionnaire survey) is characterised by low response rates. Although the study is exploratory, an attempt has been made to obtain as wide a range of responses as possible. The depth of information that one can gather by using questionnaires is limited.

6.6.2 Questionnaire design

In Chapter 1, the conceptual framework that forms the basis of this study is set out. The framework includes one concept and two related constructs. The main concept underlying this study is the *approach* to financial communication. This concept consists of two constructs, namely an *inclusive approach* and an *integrated approach*. An inclusive approach is operationalised as financial communication directed at a wide range of relevant stakeholders. An integrated approach is operationalised in terms of the management and organisation of financial communication. This framework is depicted in Figure 6.2.

Figure 6.2 Conceptual framework underlying this study



In the sections that follow, an explanation is provided as to how this conceptual framework guided the formulation of questions in developing the questionnaire used as measuring instrument. Please note that the discussion that follows applies to the final version of the questionnaire. In Section 6.6.3, the pilot test and subsequent changes to the original questionnaire are discussed. See Appendix 3 for a printed version of the final questionnaire.

- **Formulation of questions**

Although the questionnaire has not been formally divided into different sections, questions derived from a particular construct have been grouped together. The questionnaire consists of 19 questions. The way in which questions have been grouped is explained in Table 6.6.

Table 6.6 Grouping of questions according to constructs

CONSTRUCT	QUESTION	PURPOSE
Respondent details - not related to any of the constructs	Q1 - Q2	To record respondent details
Relates to Construct 2 - Integrated approach in terms of management of financial communication	Q3 - Q6	To determine the extent to which the most senior public relations / corporate communication manager assumes a strategic position and role in the organisation
Construct 1 - Inclusive approach to financial communication	Q7 - Q10	To determine whether there are indications of an inclusive approach to financial communication
Construct 2 - Integrated approach in terms of organisation of financial communication	Q11-Q14	To determine where responsibility for financial communication is located in the organisational hierarchy
Construct 2 - Integrated approach in terms of management of financial communication	Q15 - Q18	To determine the roles of the most senior financial manager, most senior public relations / corporate communication manager and consultants in the management of financial communication
Not related to any of the constructs	Q19	To provide respondents with the opportunity to request a research report

Questions 1 and 2

The purpose of Questions 1 and 2 is to record the company name and the respondent's position in the company. Although the names of companies are kept anonymous when reporting the results, this question has been included to enable the researcher to keep track of who has responded and who has not. The question regarding the respondent's position in the company is included,

because during the data analysis and interpretation stage, it is important to take respondents' background and concomitant perceptions into account.

Questions 3, 4, 5 & 6

In Chapter 2 it has been noted that, in most cases, the Financial Director or Manager assumes responsibility for investor relations (read financial communication). The Public Relations Manager plays a limited, or no role at all in financial communication. A major shortcoming of this approach to financial communication is that it is primarily directed at the financial community. In Chapter 5 it is argued that the only way to remedy this shortcoming, is to bring the public relations function (and its manager) back into the financial communication picture.

Within this context, the purpose of questions 3, 4, 5 and 6 is to determine to what extent the most senior public relations or corporate communication manager (from now on referred to as the most senior communication manager) assumes a strategic position and role in a company. For example, Question 4 investigates the level of seniority of this person - is he or she a member of the Board of Directors, or not? The purpose of Question 6 is to determine to what extent does the most senior communication manager assume the roles of strategist, manager or technician, as described by Steyn and Puth (2000:20-21). Very briefly, the role of the *strategist* is that of boundary spanner, determining the consequences of a company's strategies and policies on its relationships with various stakeholders. Information gathered serves as input in a company's strategic decision-making process. The role of the *manager* involves the development of a *corporate communication* strategy (deciding what should be communicated to stakeholders), while the *technician* role involves the implementation of communication plans and campaigns.

The reasoning behind the inclusion of these questions is that, if the public relations practitioner does have a strategically important position and role in a company, chances are that he or she will be actively involved in a company's financial communication efforts. In analysing the data, the possibility of a relationship between the strategic position and role of the most senior communication manager and his or her involvement in financial communication efforts can be investigated.

Questions 7, 8, 9 and 10

In Chapter 5, financial communication process is described in terms of an inclusive approach - an approach that takes into account the financial information needs of a broader range of stakeholders, than merely those belonging to the financial community. However, this definition is based on theory, not actual practice. Hence, the decision to determine whether there are indications of an inclusive approach to financial communication in practice, and the inclusion of Construct 1 in the conceptual framework of this study.

In Question 7, respondents are asked to provide their own definition of financial communication. Question 8 investigates respondents' views regarding the importance of engaging in financial communication with a broad range of stakeholders. The purpose of Questions 9 and 10 is to determine whether respondents view disclosure in terms of statutory and JSE requirements, as adequate to meet the financial information needs of stakeholders. Responses to these questions will give an indication of how inclusive the current approach to financial communication is in practice.

Questions 11, 12, 13, 14 and 15

These questions are derived from Construct 2 - integrated approach to financial communication (in terms of organisation). Question 11 is an introductory question with the purpose of determining whether a particular department or a

cross-functional team takes responsibility for financial communication. If respondents choose the “separate department” or “cross-functional team” options, they are directed to follow-up questions (Questions 12-15). These follow-up questions investigate the nature of the “separate department” and “cross-functional team”. None of the other options, for example “Financial department”, “Public Relations department” or “Marketing department”, require follow-up questions. Respondents are thus directed to Question 16.

Questions 16-18

This study concentrates on two main role players in financial communication: accounting professionals (or Financial Directors/Managers) and public relations practitioners. This relates to Construct 2 - integrated approach to financial communication (in terms of management). However, in reality, there are many other role players, including external consultants. Therefore, Questions 16, 17 and 18 consist of the same seven items - aspects of the financial communication process, including strategic, managerial and technical responsibilities (see the discussion of Questions 3,4,5 and 6). In Question 16, respondents have to indicate to what extent does the most senior *financial manager* take responsibility for these steps. Question 17 applies to the most senior *public relations/corporate communication manager*, while Question 18 applies to *consultants*.

Question 19

This question is merely administrative in nature. Respondents have the opportunity to indicate whether they wish to receive a report of the research results.

Note that the term “investor relations” is never used in the questionnaire. This is done to prevent possible bias. The term “investor relations” can hold the connotation of a narrow focus on investors (in the financial sense) alone. One of the main objectives of this study is to determine whether companies in South Africa

follow a narrow or a broad (inclusive) approach to financial communication. The term “financial communication” cannot be directly linked to accounting, public relations or investor relations. It must be kept in mind though, that the term might be interpreted differently, depending on who completes the questionnaire - an accounting, public relations or investor relations specialist.

- **Levels of measurement**

Du Plooy (2001:117) offers a very straightforward definition of measurement: it involves the assignment of numerals to variables that are being studied. Cooper and Schindler (2003:221) add that assignment of these numbers is done in accordance with a set of rules. By assigning numbers to variables, people can observe what is otherwise invisible. Neuman (2000:157) refers to the extension of the human senses.

Four levels of measurement can be identified, namely nominal, ordinal, interval and ratio. One can distinguish between these levels according to four characteristics, namely classification, order, distance and origin (Cooper & Schindler, 2003:223). Nominal measurement is the most basic (and weakest) in terms of these characteristics - it only classifies data according to mutually exclusive and collectively exhaustive categories. According to Du Plooy (2001:118), nominal measurement is appropriate for the measurement of discrete variables. Ordinal measurement goes one step further by adding an indication of order to the classification of data. In other words, variables are ranked by means of numerals to indicate differences between them. However, ordinal measurement does not indicate how much variables differ from each other - these differences might be unequal or unknown (Du Plooy, 2001:120). The interval level of measurement adds the equality of interval (or distance) characteristic to measurement, while the ratio level incorporates all four characteristics.

It has already been noted that the purpose of this study is descriptive in nature - the aim is to answer questions of “who” and “how”. Therefore, nominal measurement is used in Questions 3, 4, 5, 11, 13, 14, 15 and 19. However, to add more depth to the data collected, interval measurement is used in Questions 6, 8, 9, 16, 17 and 18. In these questions, respondents have to indicate degrees of importance or extent. Questions 7, 10 and 12 are open-ended questions.

▪ **Measurement scales**

Cooper and Schindler (2003:25) distinguish between rating scales, ranking scales and categorisation scales. In this study, various types of rating scales have been used in the construction of questionnaire items. These include simple category scales, multiple choice single-response scales, multiple choice multiple-response scales and multiple rating list scales. Although the scales used in similar studies have been studied, the emphasis of this particular study does not allow for exact replication. Therefore all of the scales used in the questionnaire are arbitrary - they have been custom-designed for this study.

Multiple choice, single-response scales are used in Questions 3, 4, 5, 11, 13 and 15. A multiple choice, multi-response scale (also known as a checklist) is used in Question 14. A simple category scale is used in Question 19 - respondents can either choose “Yes please” or “No thank you”. These scales use the nominal level of measurement.

Multiple rating list scales are used in Questions 6, 8, 16, 17 and 18. This type of scale is an example of multidimensional scaling, which recognises that an object or phenomenon can be described in terms of more than one dimension (Cooper & Schindler, 2003:251). Question 9, on the other hand, uses unidimensional scaling. Seven scale points have been used in these particular scales. According to Cooper and Schindler (2003:252) the use of three or five scale points is common, but seven or more points might produce greater sensitivity of measurement.

▪ **Format of the questionnaire**

It was decided to distribute an electronic (Internet-based) version of the questionnaire, rather than a paper-based version. Electronic versions hold several advantages. In the first place, it speeds up questionnaire distribution and return to a considerable extent. Secondly, colour and graphics can be used to make the questionnaire visually more appealing. Thirdly, it is an easy and convenient way for respondents to complete a questionnaire. Respondents in this study are senior executives in large companies and are therefore sophisticated and highly literate users of computer technology. In the fourth place, responses are received back (via e-mail) in coded format and can easily be imported into a file of a statistical package such as SPSS.

However, there are also a number of potential pitfalls associated with the use of electronic versions. In the first place, respondents need to have access to Internet facilities and be computer literate. Secondly, the Internet is not always reliable, and respondents might experience problems in accessing the web page or submitting the questionnaire. Unfortunately, a researcher does not have any control over this. Furthermore, using basic html programming does not provide the possibility of data encryption and security. There are, however, specialised software that can be used to design an Internet-based questionnaire, as well as manage the distribution and data capturing process.

Initially, such a programme (PHPESP) was used, but was found to be extremely limited in terms of the visual design of the questionnaire. No colour, background or graphics could be used, and one had to scroll from one side of the screen to the other to read long sentences. It was therefore decided to rather use html-format. A single web page, containing the questionnaire, was created by a member of Unisa's Department of Computer Services, and hosted on one of Unisa's servers (Otter).

Colour and graphics were used (sparingly) to create a professional look. A light grey and white pattern of R1-coins was used as background. Black was used as the main font colour, while a dark red colour was used for the caption of the questionnaire, asterisks, the thank you note at the end and to highlight important words and directions. "Radio buttons" were used to ensure that respondents could only select one option for each item. The moment a respondent clicked on another option for the same item, the previous selection was automatically cleared. One exception is Question 14, where "check boxes" were used to allow respondents to choose more than one option. Text boxes were used for open-ended questions and where respondents had to type in details when choosing the "Other" option. The size of the text boxes (in terms of the number of characters allowed) depended on the nature of the open-ended questions.

Clear directions on how to complete the questionnaire were given right at the top of the web page, as well as in between items. Respondents were also given the option to reset (clear) the questionnaire and complete it again. When a respondent clicked on "submit", a warning about the lack of security appeared on screen, giving the respondent the choice to proceed or cancel. If the respondent chose to proceed, an e-mail, containing the coded inputs ("answers") was automatically sent to the researcher.

6.6.3 Pilot test

According to Cooper and Schindler (2003:86), one can conduct a pilot test to detect weaknesses in research design and instrumentation. Some pilot tests are restricted to data collection alone. In that instance, the inputs of colleagues, respondent surrogates, or actual respondents can be used to refine a measuring instrument.

A pilot test was conducted during June 2003. As a first phase, the expert opinions of two senior colleagues regarding the content and format of the questionnaire were obtained. Minor changes were made to the wording of the questions using multiple

rating list scales. As a second phase, two other colleagues and two friends were asked to access the questionnaire web site, complete the questionnaire with “dummy” answers and submit it. In other words, surrogate respondents were used. This was done to identify any technical problems in the html-based process of completing and submitting the questionnaire.

In the third phase of the pilot test, questionnaires were sent to the Chief Executive Officers or Managing Directors of 15 of the companies included in the sample of 300. These companies were selected from the 15 largest sectors of the JSE. On 10 June 2003, e-mails, explaining the purpose of the research and containing the URL of the questionnaire web site, were sent out. Three responses were received within a week. Reminders were sent on 18 June 2003, but unfortunately no additional responses were received.

Small changes were made to the original questionnaire. One question, Question 3, was left out. The purpose of the question was to determine how important financial, social and environmental performance is to companies. All three respondents rated all three dimensions as highly important (“7” on the seven point scale). It was immediately realised that respondents in the actual survey will probably do the same. The reason for this is that the importance of the “triple bottom line” is emphasised in the 2002 King Report of Corporate Governance, and companies listed on the JSE have to adhere to the principles of the report. The initial motivation behind the inclusion of this question was to determine whether companies in South Africa follow an inclusive stakeholder approach. Based on the results of the pilot test, it was decided to rather include two new questions that test respondents’ perceptions of the narrow focus of financial disclosure (see Questions 9 and 10 in the final questionnaire - Appendix 3). It was also decided to move Question 17 in the original questionnaire and group it with the other questions derived from Construct 1 - inclusive approach to financial communication. As a result, various questions were renumbered.

6.6.4 Data collection

Petersen and Martin (1994:4) conducted a survey amongst the *Chief Executive Officers* of the 250 largest non-banking companies in Florida, USA. The purpose of the research project was to investigate *CEO* perceptions of the investor relations function. A 31% response rate was achieved. The decision to survey CEOs was based on the fact that the CEO ultimately determines how a company's various functions are organised.

Encouraged by the high response rate (at least in terms of questionnaire surveys), it was initially decided to follow the same strategy when collecting data in this study. However, during the actual process, it became apparent that this strategy would have to be adapted. The reasons for this will become apparent in the sections that follow. The data collection procedure used in this study consisted of three main activities, namely 1) database compilation, 2) distribution of the questionnaire and 3) recording of data.

- **Compiling a database**

Successful data collection depends on a reliable database. After the sampling frame was constructed in February 2003, the process of compiling a database was started. The first step was to compile an MS Excel spreadsheet, with the names, telephone numbers and web site addresses of the 300 companies included in the sampling frame. This information was obtained from the McGregor's Securities Exchange Digest for the first semester of 2003. This publication also provides the names of the Board of Directors of each company listed on the JSE and usually indicates who is the Chief Executive Officer, Managing Director, Executive Chairman, Financial Director and Company Secretary. In most of the cases an e-mail address of either the Company Secretary or the Information Helpdesk is provided.

As a second step, the web sites of the companies in the sampling frame were visited to obtain the specific contact details of respondents. However, not all of these companies have web sites. Furthermore, some of the web sites are poorly

constructed and provide limited or no information. This step proved to be quite futile, although contact details of Financial Directors, Investor Relations Managers and Public Relations/Corporate Communication Managers that were available, were recorded.

The only other alternative that remained was to contact the head offices of the companies telephonically and ask for the information. Although this strategy was time consuming, it yielded much better results. During February and March 2003 telephonic conversations were conducted mostly with the personal assistants of Chief Executive Officers and Managing Directors. A number of personal assistants immediately declined to participate in the study on behalf of the CEO or MD. Others refused to provide any information. However, a large number were cooperative and at least provided their own e-mail addresses, if company policy prevented them from providing the e-mail address of the CEO or MD. In some cases, the e-mail address of the Financial Director was given. During the course of this process, it was therefore decided to ask for the e-mail address of the Financial Director, if the e-mail address of the CEO or MD could not be obtained. Where contact details were still missing, the information contained in the McGregor's Securities Exchange Digest was used (e-mail addresses of the Company Secretary or Information Helpdesk).

- **Distribution of questionnaires**

Due to the variety of respondents whose contact details were obtained, the initial idea of only obtaining the inputs of CEOs or MDs had to be discarded. It was therefore decided to distribute the questionnaires in phases. The objective of the first phase was to collect data from as many CEOs and MDs as possible. This phase was implemented during the second week of July 2003. E-mails were sent either directly, or via personal assistants, to the Chief Executive Officers or Managing Directors whose addresses had been recorded. These e-mails served as cover letters, but also included the URL of the questionnaire web site (respondents only needed to click on it to access the web site) and an explanation of the process

behind submission of responses. The e-mails were personalised, addressing a particular person and referring to his or her particular company. This was done manually - in other words, e-mails were sent out individually.

Executives are extremely busy and do not have time to read lengthy e-mails. The most essential information was therefore placed right at the beginning of the e-mail message. The subject line and the introductory paragraphs were formulated to immediately grab respondents' attention. The research project was introduced immediately after the introductory paragraph. See Appendix 1 for an example of the e-mail message sent to CEOs and MDs.

The response (in terms of submitted questionnaires) was extremely poor. However, quite a number of replies to the e-mail messages were received. In most cases, the personal assistants of the CEOs and MDs replied and either declined, or indicated that the message was forwarded to the person responsible for the company's financial communication efforts (either the Financial, Investor Relations, Public Relations or Corporate Communication Executive). Reminders were sent to those respondents from whom no response was received, two weeks after the initial e-mail messages were sent. By the end of July 2003, questionnaires were being received from respondents other than CEOs or MDs. It was therefore decided to implement the second phase of questionnaire distribution. E-mail messages, similar to those sent to the CEOs and MDs, were sent to the Financial Directors of companies from which no response had been received, and whose contact details were obtained. The response was slightly better, although the same trend as in the case of CEOs and MDs were observed. A small number completed and submitted questionnaires, while others declined or forwarded the e-mail message to other members of staff.

In a final attempt to increase the response rate, e-mail messages were sent to the Company Secretaries or Information Helpdesk of companies from which no response had been received. Recipients were requested to forward the message to

the person responsible for their company's financial communication efforts. This strategy was more successful in terms of the number of responses received.

However, respondents varied significantly in terms of level of seniority and affiliation to functional sections or departments. This situation holds advantages and disadvantages. The advantage is that the data collected reflects a wide array of perspectives. It has already been noted that the objective of the empirical component of this study is to obtain a wide range of perspectives. However, the disadvantage is that one will not be able to make any definite conclusions from the data. The fact that the respondents varied in terms of background and knowledge will have to be taken into account when analysing the data.

- **Recording of data**

The moment a respondent completed a questionnaire and clicked on "submit", an e-mail, containing the responses to the questions, was automatically generated and sent to the researcher. See Appendix 4 for an example of such an e-mail. The major advantage of this procedure was that the responses to the close-ended questions were received in coded format. This made the recording of the data much easier. To prevent any loss of data, the contents of all the e-mails were copied into WordPerfect files and saved. The statistical software package, SPSS 11.0 was used to create a data file and the coded responses to the close-ended questions were recorded manually. SPSS makes it possible to assign discrete values to missing responses. Therefore, missing responses were coded with the discrete value of "11". There were also instances where respondents did not have to answer particular questions, based on their responses to previous questions. In these cases, missing responses were coded with the discrete value of "12", and were labelled as "Not applicable".

There were two open-ended questions in the questionnaire. Responses to these questions could not be precoded, but were recorded verbatim in the e-mails received from respondents. There were also nine close-ended questions that provided the option to choose "Other" and specify. This option was used extensively in Question 4. It was therefore decided to code the responses and record them in the SPSS data file for further analysis. The "Other" option was used to a limited extent in the other eight questions. Responses were therefore not recorded in the SPSS data file, as they did not warrant statistical analysis.

6.6.5 Data analysis

Open-ended and close-ended questions require different types of data analysis. The different methods and techniques that were used in this study are discussed in the sections below.

- **Open-ended questions**

According to Cooper and Schindler (2003:460), content analysis can be used to code and analyse responses to open-ended questions. Neuman (2000:293) describes content analysis as an objective and systematic counting procedure to describe the symbolic content of text in quantitative terms. Cooper and Schindler (2003:460-461) refer to the manifest and latent content of messages. Manifest content is the visible, surface content of a message, while latent content is the underlying, implicit meaning of a message (Neuman, 2000:295-296).

The first step in content analysis is to decide which units will be used to analyse the message. Different types of units can be used. *Syntactical* units are words, phrases, sentences or paragraphs. Examples of *referential* units are objects, events or persons referred to in the text. *Propositional* units include questions, answers, statements, assertions or arguments, while *thematic* units are repeating patterns of ideas or issues (Cooper & Schindler, 2003:461; Du Plooy, 2001:191).

Content analysis was used to code and analyse the responses to Question 7 and Question 10. While reading through the responses, various syntactical units were identified. These units were then used to identify specific categories. Some of the categories only contained one or two responses. These were not statistically analysed, but were discussed in narrative format. For example, nine categories were used to code the responses to Question 7. However, the responses to only one category justified statistical analysis and were therefore recorded in the SPSS data file. The results will be reported by means of a frequency table.

- **Close-ended questions**

Various types of measurement scales were used in the close-ended questions. The questions that used multiple choice single-response scales and multiple choice multi-response scales (Questions 3, 4, 5, 11, 14 and 15), yielded nominal data. The only type of statistical analysis that can be performed on nominal data is frequency calculations. Thus, when reporting the results of these questions, frequency tables will be used. Results will be presented visually by means of bar and pie charts.

In Question 14 respondents were requested to select all the appropriate options. The implication of this is that a large number of different combinations could be selected. However, the different combinations are not as important for the purposes of this study. The main goal of this question was to determine which functions are typically included in cross-functional teams responsible for financial communication. It was therefore decided not to record all the different combinations of options, but to calculate how many times each option was selected – in other words frequencies. The results will be presented by means of a bar chart.

Multiple rating list scales were used in Questions 6, 8, 9, 16, 17 and 18. Descriptive statistics will be used to calculate the mean and standard deviation values for each variable. According to Cooper and Schindler (2003:474), the mean is a measure of *location* or central tendency. The measurement scales used in the questionnaire

consisted of seven points. The mean values for each variable will therefore indicate whether most responses are located to the left or to the right of the centre of the scale. However, it must be remembered that the mean is an *average*, and does not indicate how individual responses are spread across the seven point scale.

This limitation is addressed by the most commonly used measure of *spread*, the standard deviation. According to Neuman (2000:320), the standard deviation is used for comparison purposes, as it is of limited use on its own. When compared with the mean calculated for each variable, the researcher can establish how far away from the average the data values are (Cooper & Schindler, 2003:475). In other words, a relatively high standard deviation indicates that the data values are widely dispersed, while a relatively low value indicates that the data values are located near to the mean. In the case of a seven point scale, standard deviation values of 0 - 1,5 would be considered as relatively low, while values above 1,5 would be considered as relatively high. A standard deviation value of 2,5 - 3 would indicate that respondents varied significantly in their opinions regarding a specific variable. Frequency calculations for data values will only be used in the case of very high standard deviation values, or where the position/functional affiliation of respondents might have affected the results.

The mean values for the variables in each question will be presented graphically by means of bar charts. Identical variables were used in Questions 16, 17 and 18. Besides drawing bar charts for each *question*, the mean values of the three questions will be compared by drawing separate bar charts for each *variable*.

6.7 Conclusion

This chapter introduces the empirical component of the study. Content-wise, it has therefore deviated quite significantly from the major themes in the previous chapters (the theoretical component). However, this deviation is necessary to set the scene for the discussions in Chapters 7 and 8 (research findings). In order to make sense of the

findings of a research project, the reader needs to be fully aware of the research strategy, design, methods and techniques used to obtain the results. For example, the fact that this study is exploratory in nature must be constantly borne in mind when assessing the results.

In the discussions of the research findings that follow, the major themes of the theoretical component emerge again. In Chapter 7, the findings related to the construct “*inclusive* approach to financial communication” are reported and interpreted in terms of relevant theory. In similar fashion, the results related to the construct “*integrated* approach to financial communication” are reported and interpreted in Chapter 8.