

CHAPTER 5

The business communication potential of CARs

5.1 Introduction

Accounting by its very nature is complex. Morgan (1988:481) contends "... for accounting, like other aspects of social life, is inherently complex, multi-dimensional and paradoxical ...". To communicate accounting concepts is therefore a difficult task. "The use of technical terms to communicate accounting information can lead to misunderstanding when the meaning of such terms is not fully appreciated by the recipient of the information ..." (Evans, 2004:210). The communication of accounting concepts will be further addressed in the questionnaire for preparers as statement 29: *To communicate accounting concepts is a difficult task.*

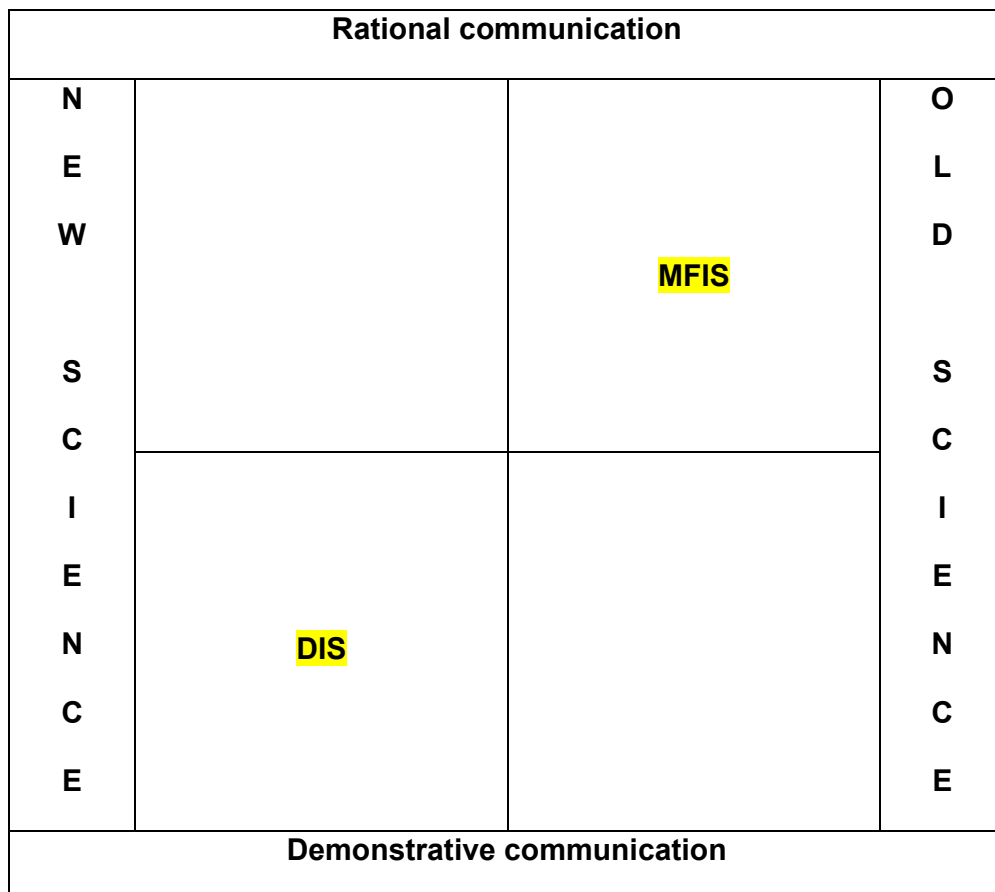
One of the aims of accounting is to communicate information between and among preparers and users of such information and this is accomplished using specific words and techniques that simulate the characteristics of a specific language (Belkaoui, 1995:1). This *inter alia* implies that the readability of CARs needs to be enhanced. Therefore the disclosure of statutory information and discretionary information in CARs needs to be properly communicated to stakeholders in order to address their information needs. In chapter 4 the features that enhance the quality of the information to be disclosed in the CARs of entities were explored. The chapter concluded that these features do indeed contribute to the enhancement of disclosures in CARs and that preparers of CARs should have an enduring awareness of them when compiling mandatory financial information and discretionary information in CARs where ethics plays an important role.

Communication between entities and stakeholders occurs "continuously and in many forms" (Courtis, 1998:459). A meaningful channel of disclosure communication is that between the entity and financial analysts representing brokerage firms and investment consultants (Wolk *et al.*, 2000:305). In this chapter the business communication potential

of CARs is explored in order to discover ways to bridge the gap between the preparers and users of CARs.

Firstly, the process of communication in general is explored, followed by an investigation into CARs as a communication system, distinguishing between the communication features of the system responsible for the statutory disclosures in CARs, namely the MFIS, and those responsible for the discretionary disclosures in CARs, namely the DIS. The two systems responsible for the disclosures (communication) in CARs can be visualised as follows:

.Figure 5.1: The MFIS and DIS as communication systems



Source: Own observation

The MFIS gravitates towards rational communication making use of the features of the old science discussed in chapter 2. It therefore generates disclosures (communication) making use of generally accepted accounting practices. It could be argued that the communication here is more rules based. The DIS favours demonstrative communication making use of the features of the new science discussed in chapter 2. It therefore generates disclosures making use of narratives, pictures, visuals and graphs. Although the two systems are diverse, they are nevertheless connected, resulting in powerful communications in CARs.

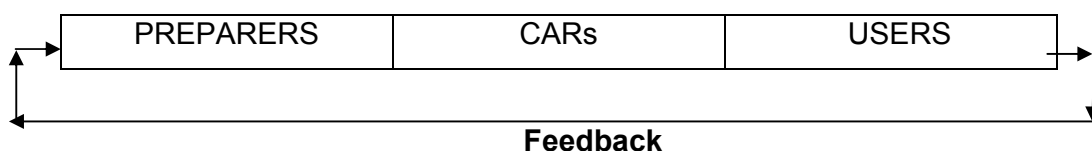
5.2 The process of communication

The process of communication as it relates to CARs is addressed by providing a general background to the topic, followed by a discussion of the conceptual communication dimensions of CARs and the attributes of communication as they relate to the preparers of CARs, CARs as communication documents and the users of CARs in general.

5.2.1 Background

In chapter 4 it was shown how quality information is generated by two systems in CARs, that is, the MFIS responsible for statutory disclosures and the DIS responsible for discretionary disclosures. The aim of this chapter is to explore the way in which this quality information, the lifeblood (primary energy for decision making), of CARs, is to be communicated to stakeholders using the CARs as the communication channel or vehicle. Figure 5.2 illustrates the process of communication.

Figure 5.2 The process of communication



Source: Own observation

The preparers of CARs encode the accounting messages in these reports to convey information to users; while the users decode these accounting messages. In order to enhance the quality of CARs they provide feedback on the information content of CARs. Communication plays a vital role in accounting activity (AAA, 1966:13), and, ideally, entities' CARs, which are their most important communication document and represent a special communication opportunity (Barac, 2003:2), must consist of an information package that will enable all users to create their own reality in terms of their own goals or objectives. The preparers of CARs are faced with immense challenges when attempting to communicate constantly changing information. Curtis (2004:292) points out that "... determining the precise set of relevant information for all users remains an on-going issue ...".

Entities should ideally have an organised disclosure policy procedure (Wolk *et al.* 2000:307), as disclosure is an important function that needs to be carefully managed (Lev 1992; Gibbons, Richardson & Waterhouse, 1992). Entities spend much of their time and effort on the CARs preparation process in recognition of their importance as a communications document, and therefore preparers of CARs need to know what the communication process requires.

The process of communication encompasses the functions of preparing and formulating, or "encoding", a message, sending this message to others and its reception by others who interpret or decode it (Goldburg, 2001:70). Campbell, Shrives & Bohmbach-Saager (2001:68) argue that information is only communicated once it has been read and understood. The preparers thus encode accounting messages, for example numbers and ratios, which are then reflected in the CARs document, usually either as part of the statutory information section or the discretionary information section.

The communication process makes use of the signs and symbols with which humans influence one another, and accounting records consist of symbols that represent some perceived objects or services and this representation may be pictographically or verbally reflected (Goldburg, 2001:14). Pictures, graphs and narratives play an important role in disclosing discretionary information in CARs generated by discretionary accounting practices. Curtis (2004:292) contends that the preparation of information "... encompasses media (e.g. annual reports and the Internet (Laswad, Oylere & Fisher, 2000:40)), layout and format (e.g. general organisation, fonts and margins), and techniques (e.g. photographs, graphics, animation, tables and prose) ...". It is therefore important to use professional designers in the preparation process of CARs. This aspect is further explored in the questionnaire for preparers (chapter 9) as statement 23: *External professionals are used to prepare the photographs, tables and graphs in CARs*. Tuohey (2003:36-37) states that the repeated use of key themes throughout the annual report enhances the readers' comprehension of the material. It is therefore necessary to repeat certain issues in different sections of CARs as users will not necessarily read the entire report. The process of communicating in CARs must be carried out with care, otherwise the message aimed at the users/stakeholders will be distorted and misunderstood and in such cases no communication has actually taken place.

5.2.2 Conceptual communication dimensions of CARs

Entities' CARs are filled with conceptual communication dimensions. Gouws (1997:74-75) refers to accounting communication as consisting of a wide spectrum of interrelated dimensions. This is also true for the business communication process in CARs. Table 5.1 lists some of the conceptual dimensions.

Table 5.1: Conceptual communication dimensions of CARs

<ul style="list-style-type: none"> • The business communication process in CARs entails the verbal interchange of financial messages through symbols.
<ul style="list-style-type: none"> • Business communication is a process by which preparers of CARs understand users and in turn endeavour to be understood by them.
<ul style="list-style-type: none"> • The business information contained in CARs is dynamic and constantly changing in response to the demands of an ever-changing environment.
<ul style="list-style-type: none"> • The business communication process in CARs involves an interaction between stakeholders.
<ul style="list-style-type: none"> • The business communication process in CARs grows from the need to <ul style="list-style-type: none"> ○ reduce uncertainty ○ act effectively and economically ○ defend or strengthen perceptions on the state of affairs
<ul style="list-style-type: none"> • The business communication process in CARs entails the transmission of data, information, ideas, trust etc. by means of words, symbols, graphs, etc.
<ul style="list-style-type: none"> • The business communication process in CARs acquires a sense of participation between the sender and the receiver of the message. Something is transferred from one to the other.
<ul style="list-style-type: none"> • Business communication in CARs is the process by which the peculiar characteristics of the preparers and the users are linked to one another.
<ul style="list-style-type: none"> • The business communication process in CARs is public rather than private. Certain sectors or persons should not be favoured to the detriment of other sectors or persons.
<ul style="list-style-type: none"> • The business communication process in CARs encompasses the conveying of economic and financial messages and represents the channel through which messages flow from the preparer to the user.
<ul style="list-style-type: none"> • The business communication process in CARs allows for the feedback of users.
<ul style="list-style-type: none"> • The main purpose of the business communication process in CARs is to affect and influence the behaviour of the user/reader through economic and financial messages.
<ul style="list-style-type: none"> • Business communication in CARs is the process whereby power is exerted in an uncertain world in order to influence the movement of wealth.

Source: Adapted from Gouws (1997:74-75)

The business communication process in CARs, which entails a wide spectrum of interrelated dimensions, arises from the need to reduce users' uncertainties and risk. CARs also reflect a process through which the peculiar characteristics of the preparers and users are linked to one another. Information, influenced and generated by choices between ever-evolving accounting practices, is communicated to users using CARs as the communication channel.

5.2.3 Attributes of communication with CARs

In general there are three role players in the CARs communication process, that is, the preparers, the CARs documents and the users of CARs.

5.2.3.1 The preparers of CARs

For proper communication to take place, preparers of CARs should constantly ask themselves how the various stakeholders would probably interpret the messages in CARs in order to make the accounting messages in CARs more understandable and meaningful. Preparers need to move away from their traditional approach to reporting. Morgan (1988:484) argues that "... they will see that their ultimate aim should be to develop the art of 'reading' and probing situations to create intelligent, actionable insight, rather than to produce rigid technical statements as ends in themselves...". The statutory section in CARs could for example be complemented with graphs and visual illustrations to make the numbers more meaningful. Belkaoui (1995:41) is concerned that "... the general level of readability of accounting messages is difficult, and the level of understandability of the meaning of accounting messages is less than perfect ...". Preparers need to strive for the enhancement of meaning in CARs. Courtis (1998:460) is of the opinion that "... annual reports are being written at a reading-ease level which is classified as difficult to very difficult ...". Ways need to be found to make CARs more readable.

It would seem that annual reports have however become less readable (Schroeder & Gibson, 1992:28). A probable solution to this concern is that the role players in the CARs preparation process should, ideally, decide on the financial and other disclosures to be made after consultation with likely users. The discretionary information contained in CARs can, to a certain extent, be used to make mandatory information more meaningful/ understandable. Decisions need to be made on which of the entity activities to disclose in CARs and their characteristics should be described in enough detail to ensure that potential users understand the meaning of the resulting disclosures.

Accounting is the language of business (Lawrence, 1992:1-15) and language includes vocabulary. Belkaoui (1995:ix) asserts that “accounting is first a communication tool. Communication is accomplished by a specific language with its own logical and grammatical characteristics ... accounting needs to reach adequate levels of readability and understandability to guarantee the effectiveness of accounting communications”. Narrative disclosures in CARs could supplement the disclosure of numbers to enhance meaning. It is sometimes difficult to communicate because someone might know what is to be conveyed (know its meaning), but finds it difficult to express exactly what he or she means (Goldburg, 2001:78). This is also true for the preparers of CARs.

Goldburg (2001:78) contends that inexpressible experiences and abstract terms are difficult to communicate. Accounting vocabulary is therefore a problem. This difficulty is manifested in the statutory section of CARs where mandatory information is disclosed that is not always understood by users. Another problem might be that some of the stakeholders may not have mastered the specialised terminology used by preparers to communicate various entity activities in CARs or that they do not know the full context of what is being communicated. The DIS is the information system that could provide the contextual information in CARs, making use of discretionary accounting practices. The discretionary information in CARs fills the gap that the statutory disclosures in CARs cannot.

Goldburg (2001:78) refers to a common-language terminology that communicators could use, so that users can obtain an approximate understanding of their messages. The discretionary section of CARs is probably the place to use such a common language. The OFR that is included in the discretionary section of CARs may be more understandable to users than the statutory disclosures. Belkaoui (1995:57) views accounting as a business language that represents phenomena in the business world, just as language represents phenomena in the real world. The risk with accounting as a language is that it can be misunderstood or misrepresented (Belkaoui, 1995:61). One of the greatest challenges in the CARs preparation process is to communicate effectively. Pictures, graphs and visuals may play an important role in enriching the communication process. The use of these CARs reporting practices has increased tremendously over the last few decades.

5.2.3.2 CARs as a communication instrument

The strengths and weaknesses of CARs as a medium of communication to convey understandable and meaningful information to users will now be considered, as the annual report is an entity's most important communication document (Pratt, 1996:13; Stanton *et al.*, 2004:57). The communication channel through which the message is transmitted (i.e. the CARs document) must convey clear messages. The symbols to be used in encoding the messages (i.e. the statutory disclosures generated by the MFIS and the discretionary disclosures generated by the DIS) in CARs must hold the same meanings for both the preparers and the users. In CARs, the use of symbols (e.g. numbers, ratios, graphs, photos, visuals) in the communication process attempts to bring into common agreement the perceptions of different people (e.g. the preparers and users) regarding their understanding of the symbols of the language used between them. Here the discretionary disclosures in CARs generated by the DIS have certain advantages, as ratios, graphs, and so on and common words are more easily applied. Preparers of CARs try to express the meaning that the MFIS and DIS disclosures have for them and invite the users of CARs to agree that they fit their experiences. If such agreement in CARs is possible, then communication can take place; however, if such agreement in CARs is not possible, no communication can take place.

In CARs, for successful communication to take place, the symbols need to approximate the concepts, thoughts or perceptions of the preparers and the users who are in the process of communicating. Goldberg (2001:75) maintains that “[t]hus the world of symbols is a self-perpetuating and inescapable universe by which humanity is surrounded and permeated in almost all its activities”. The symbols in CARs serve as tools, by means of which the preparers can put their perceptions about an entity down on paper so to speak. The communication of information through the CARs represents a process of sharing between the preparers and the users.

5.2.3.3 The user/stakeholder

To improve the quality of communication in CARs, the preparers could obtain an understanding of the users’ characteristics, that is, their level of education, intelligence, communication skills, culture and relevant knowledge (Gelinas, Rama & Skelton, 1996; Gouws, 1997:62-63), because communication will improve if preparers know who their audience is.

An awareness of how users use the information will enhance communication and will ensure that the messages in CARs are clearly understood as, “... theories from the discipline of linguistics ... suggest that language affects the way we (the user) think ...” (Evans, 2004:210). These messages have to mean something to the users, and the conveyance of meaning depends on a common sharing of the appropriate means of encoding and decoding a message by the preparer and the user – there needs to be some commonality of language, that is, the disclosures in CARs must mean the same to preparer and user (Goldberg, 2001:83). Therefore, commonality of language between preparers and users is a prerequisite for understanding. The contextual information disclosed in the discretionary section of CARs has this attribute of commonality of language, while the statutory disclosures perhaps lack the commonality of language and vocabulary. Proper feedback by users (e.g. allowing users to give feedback about the disclosures in CARs to an entity’s corporate communications department) will stimulate

change and enhance better quality messages in the CARs reporting process. The user has to be able to interpret the message correctly, which is an intellectual activity, otherwise improper communication will have taken place.

In this section the process of communication in general was explored. The following paragraphs represent an investigation into CARs as a communication system, distinguishing between the communication features of the system responsible for the statutory disclosures in CARs, namely the MFIS, and those responsible for the discretionary disclosures in CARs, namely the DIS.

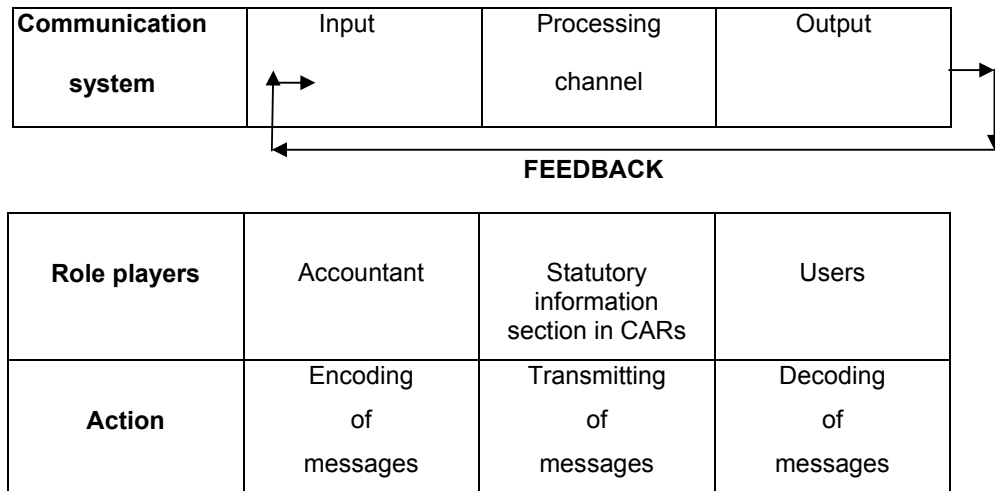
5.3 The CARs communication system

In accordance with systems theory, communication through CARs consists of three functions: input, process and output. Furthermore, two systems are responsible for disclosures in CARs, the first being the MFIS, which is concerned with the generation of statutory information, and the second the DIS, which is concerned with the generation of discretionary information. These two systems combine to form a partnership. The DIS forms the context within which to make sense of the statutory information presented by the MFIS.

5.3.1 The MFIS

The MFIS in CARs is involved with the generation of statutory information where the entity itself plays a major role. Here the most important objective of the accounting system relates to accountability and stewardship; that is, accountability (or stewardship) to the owners, investors and potential investors of the entity is the most important objective of accounting (Schoonraad, 2004:42). The decision needs of users other than owners, investors and potential investors are not necessarily taken into account. Figure 5.3 illustrates the MFIS.

Figure 5.3 Mandatory financial information system (MFIS)



Source: Own observation

In the case of the MFIS in CARs, the communication system consists of three parts: input, processing and output. This system encompasses

- the accountant, who is a preparer of information and is responsible for encoding the messages
- the statutory information section in CARs, which is used as a channel through which the messages are transmitted
- the users (mainly investors and potential investors) who must decode and interpret the messages in order to create their own reality in terms of their goals and objectives

5.3.1.1 The preparers

The preparers of CARs use the MFIS to provide information that will enable principals (owners/investors) to determine how well the agent, that is corporate management, has managed their business and investments. In this regard accounting, as the “language of business” (Belkaoui, 1995:41), communicates statutory information about the entity and

provides statutory concepts and frameworks that structure thought, conversation, perceptions and decision making for the benefit of the owners/investors. The audited statutory information in CARs enhances the accountability of corporate management (Lee, 1993:94). The MFIS in CARs is very selective in its observation of data in the environment; the reason being that generally accepted accounting practices filter the information and allow only certain types to be recorded (input). GAAP is very selective as it only captures that type of data that is measurable.

5.3.1.2 The statutory information section

The information generated by the MFIS using GAAP, the requirements of the Companies Act and JSE regulations is disclosed in the statutory section of CARs. This system has evolved over the centuries from a bookkeeping function to what it is today a complex and multidimensional discipline. Here CARs fulfil the role of transmitter of mandatory messages governed by GAAP. These mandatory messages are communicated to users in accordance with the requirements of accounting standards (the IFRSs and IASs) and are more comparable and reliable than the discretionary messages, which may be more relevant.

5.3.1.3 The users

The users of the statutory information created by the MFIS in CARs include the owners (or principals) of and investors in entities and they use this information to evaluate how well their businesses have been managed, with financial performance for example as one of the main objectives. These users decode and interpret the statutory messages in CARs in order to create their own reality in terms of their goals and objectives. One of the aims of financial reporting is to strike a balance between transparency and simplicity (Sayther, 2004:6).

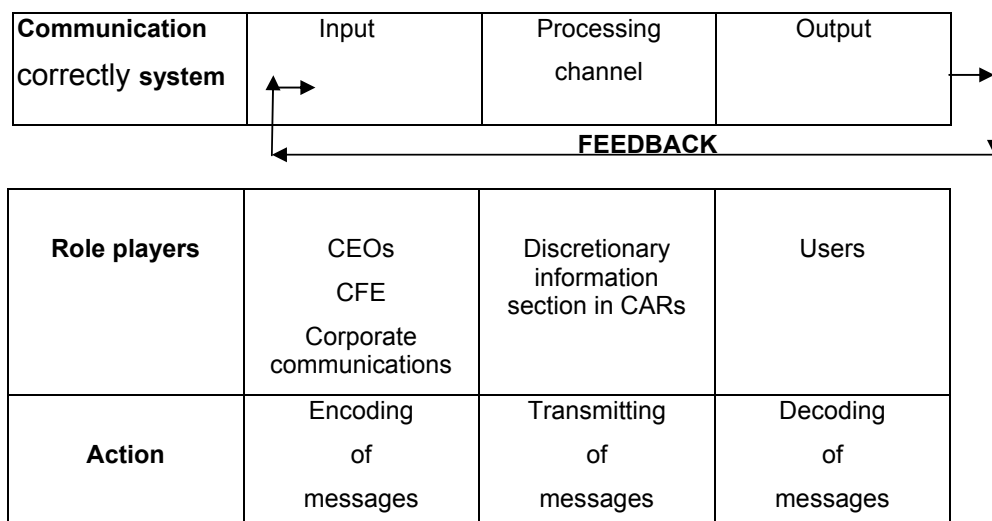
In order to enhance the meaning of statutory disclosures in CARs, complexity in accounting standards needs to be removed and their understandability increased. Feedback from users could be considered in order to make statutory disclosures user-

friendlier. Feedback from users takes place via a formal IASB system of due process and broad international consultation, which involves accountants, financial analysts and other users of financial statements, the business community, stock exchanges, regulatory and legal authorities, academics and other interested individuals and organisations from around the world (IASB,2005). The achievement of this user feedback is very important.

5.3.2 The DIS

The DIS is the system responsible for disclosing discretionary (contextual) information in CARs, making use of discretionary accounting practices. The discretionary disclosures could be designed with the information needs of users (stakeholders) foremost in mind (Schoonraad, 2004:107). In order to achieve this, the business community, security exchanges, academics and other interested individuals could be given the opportunity to give feedback to the corporate communication departments of entities in order to enhance the discretionary disclosures in CARs. Figure 5.4 illustrates the discretionary financial information system that communicates discretionary disclosures in CARs.

Figure 5.4 The discretionary information system (DIS)



Source: Own observation

In the case of the DIS in CARs, the communication system consists of three parts, namely input, processing and output. This system encompasses

- the preparers, for example management, the corporate communications department and the financial department, who are responsible for encoding the messages.
- the DIS in CARs, which is used as a channel through which the messages are transmitted
- the users (all stakeholders) who need to decode and interpret the messages in order to create their own reality in terms of their goals and objectives

5.3.2.1 The preparers

The preparers of CARs use the DIS to provide all stakeholders with discretionary information. The preparers of the messages in the discretionary section of CARs could always ask themselves who they are trying to reach with their communication. Proper communication is not an easy task, but preparers need to face it as part of their vocational and professional responsibilities (Goldburg, 2001:91). Communication is a team effort and professional designers of CARs may play an important role in this communication. Curtis (2004:292) asserts that "... narrative communication is impaired unless there is clarity in writing ...". Use could be made of language editors to enhance the communication messages in CARs. Other ways of enhancing the communication in CARs may be the use of graphs. Beattie & Jones (2002:546) contend that the communication advantages of graphs are well established. The use of graphic designers, photos and visuals can also enhance communication in CARs. Preparers of the discretionary section of CARs face an enormous challenge to communicate properly and this involves a process that has to be thoroughly managed.

5.3.2.2 The discretionary information section

The information generated by the DIS is disclosed in CARs as discretionary information. The discretionary section in CARs serves as a channel through which messages about discretionary disclosures are transmitted to users. The DIS in CARs creates and reflects the contextual information important to users, which the statutory disclosures of CARs cannot provide. The decision needs of users, which dominate accounting research (Davis, Menon & Morgan, 1982:311), could be taken into account when designing the discretionary section of CARs. Feedback from users, from which one may determine what their needs are, will be an important issue to consider.

Schoonraad (2004:45) reports that accounting has all the attributes of a system: the input of data, the processing of the data and the output of financial information that ends up in a communications document. CARs are such communications documents and any disclosure system should be designed to accommodate the needs of users as well. Gouws (1997:62-63) identifies the fact that users have a need to respond in order to create change, which once again emphasises the need for effective feedback.

An information system that is decision orientated like the DIS in CARs must produce information that addresses the needs of users. The objective of the DIS is thus to provide the contextual information that the statutory disclosures in CARs do not provide, which enables various stakeholders to see the big picture and to make optimal decisions regarding the allocation of their scarce resources.

5.3.2.3 The users

The users of the discretionary information created by the DIS in CARs consist of all those that have a stake in the entity. For proper communication to occur, there should be a common understanding (Goldburg, 2001:91) of the information by preparers and users. Could visual illustrations, graphs and photos perhaps address the need for a common understanding of discretionary disclosures in CARs? A common understanding is difficult

to achieve as language, culture and thought are linked, language and culture mutually influence each other and language predisposes particular ways of thinking and perception (Evans, 2004:239). This is definitely the case in South Africa, a country with eleven different languages. A communication problem currently exists in communicating to users using CARs as a communication channel. On the one hand, some of the users of CARs are not able to understand what is being communicated, as they are technically incapable of creating meaning from the detail in CARs (Courtis, 1998:460). This aspect is further explored in the questionnaire for users (chapter 10) as statement 25: *Users of CARs are not able to understand what is being communicated, as they are technically incapable of creating meaning from the detail in such document.* On the other hand, there are technically proficient users who might be able to create some meaning from CARs but who would be dissatisfied with the number of disclosures that is provided, because they feel they could have been given far more detail. Between these two extremes “there may be an extremely large number of shades of difference in capacity” (Goldburg, 2001:92). Preparers must therefore make assumptions about the needs of different users, which they must address through the CARs. The information in CARs could be structured in such a way that users will access it easily. Helpful navigational aids ensure readers can find the information companies have taken such trouble to publish (Anon 1, 2006:10).

5.4 Summary and conclusion

In this chapter the business communication potential of CARs, was explored to discover ways to bridge the gap between the preparers and users of CARs. CARs represent a continuous escalation of disclosures (Lee, 1994:223). The process of communication was explored in general terms: it encompasses the functions of preparing and formulating, or “encoding”, a message, sending this message to others and its reception by others who interpret or decode it. The business communication process in CARs, which entails a wide spectrum of interrelated dimensions, was also explored and the three role players in the CARs communication process were identified, that is, the preparers, the CARs documents and the users of CARs.

An investigation into CARs as a communication system was undertaken, distinguishing between the communication features of the system responsible for the statutory disclosures in CARs, namely the MFIS and the DIS. Feedback from users on the effectiveness of communication using CARs as a communication channel, and the interpretability and usability for decision making, is absolutely vital. The feedback can be used to enhance the quality of the information presented in CARs.

The conclusion is that CARs should comprise information packages that will enable all users to create their own reality in terms of their goals and objectives. With proper communication messages, CARs, in their role as the most important entity communication channel, will retain their relevance and justify their existence. Users (investors) want clarity, messages backed up by evidence, plain speaking, plain English and a balanced discussion of performance (Anon 1, 2006:8). The discretionary disclosures in CARs that provide the contextual information need to supplement the statutory disclosures for a full understanding of the big picture.

With proper feedback systems in place, CARs stakeholders will play an important role in the communication process such that CARs will be perceived as creators of meaning. As far as the MFIS is concerned, which uses IFRSs and IASs as GAAP to generate statutory disclosures in CARs, feedback from users takes place via a formal IASB system of due process and broad international consultation involving accountants, financial analysts and other users of financial statements, the business community, stock exchanges, regulatory and legal authorities, academics and other interested individuals and organisations from around the world. This feedback shapes the generally accepted accounting practices used to disclose statutory information in CARs. As far as the DIS is concerned, proper user feedback on the disclosures in CARs could be made to the corporate communications department of an entity and this would stimulate change and shape discretionary accounting practices and promote better quality messages in the CARs reporting process.

CHAPTER 6

Decision usefulness

6.1 Introduction

The primary driving force in an information product like CARs, which influences the evolution of the accounting practices that generate disclosures in CARs, is the users' need for decision-useful information to optimise returns. The fact that the information presented in annual reports is used for decision-making purposes is widely accepted (Moonitz 1961:4; Objective No 1 of the Trueblood Report [AICPA, 1973]; Kam, 1990:48), for example the equity investor is *inter alia* interested in earning power and in earnings per share, but many other considerations and judgements must be added to these data before an investment decision can be made (Bernstein, 1989:795). Users also need decision-useful information in order to reduce uncertainty. Foster (1986:9) asserts "... there may be uncertainty over future profitability of a firm, the quality of its management ...". Reducing uncertainty is a costly process, and the main aim of CARs is to reduce uncertainty.

Wolk *et al.* (2000:318) point out that the great complexity of business and financial and operating events means that financial statements must be supplemented with an increasing array of disclosures. Users interpret the disclosures communicated to them through the CARs and they in turn could give feedback by completing questionnaires (that could be included in the CARs distributed to stakeholders) to indicate the type of decision-useful information they need. This again influences the evolution of the accounting practices that are responsible for the disclosures in CARs. Where there is no opportunity to provide feedback "the usefulness of annual reports" are in question (Clatworthy & Jones, 1999:43). A benefit that feedback brings is that "... [t]he more that stakeholders participate in the decisions which affect them ... the greater the likelihood that they will be committed to the future of the corporate enterprise ..." (Freeman & Liedtka, 1997:287). As mentioned in chapter 5, as far as the disclosure of statutory information in CARs is concerned, feedback from users takes place via a formal IASB system of due process and broad international consultation. Here there might be room for improvement.

As far as the disclosure of discretionary information in CARs is concerned, users could provide or construct feedback for the corporate communications department of an entity to

enhance the quality of the messages contained in CARs. A questionnaire could, for example, be included in CARs for this purpose. It is therefore important to have an in-depth look to the primary driving force of disclosures in CARs, that is, what is known as decision usefulness. Decision-useful information will reduce the uncertainty and risks of users.

In chapter 5 the business communication potential of CARs was explored in order to discover ways to bridge the gap between the preparers and users of CARs. From the investigation it is evident that feedback from users on the effectiveness of the information that CARs provide in their role as a channel of communication, and the interpretability and usability of the information CARs provide for decision making, is vital. This feedback can be used to enhance the quality of the information presented in CARs. It is further concluded that with proper communication messages, CARs in their role as an entity's most important communication channel, will retain their relevance and justification. The purpose of this chapter is to shed more light on decision usefulness and user decision making.

6.2 User needs drive reporting

6.2.1 Introduction

The demand for accounting information exists because individuals wish to improve their investment decisions (May & Sundem, 1976:763) as well as their decisions regarding the allocation of scarce resources. The objective of financial reporting is to provide decision-useful information (Stainbank & Peebles, 2006:69) and the information disclosed in CARs will also be useful if it can benefit users in the future. Decision usefulness has been the ascendant reporting paradigm in the US and other English-speaking countries since the 1970s (Coy & Dixon, 2004:80). It has therefore been decided to explore the features of a decision-usefulness approach and its influence on the reporting practices of CARs. Figure

6.1 illustrates decision usefulness as the most important qualitative informational characteristic (FASB, 1980 in Belkaoui [2004:186]). Users need decision-useful information in order to make interpretations and decisions regarding the allocation of scarce resources.

Usefulness is a future-orientated concept that gives meaning and insight to the things that might be enjoyed and be of value to users in the future. It therefore governs the future behaviour of users. Figure 6.1 shows how decision usefulness as a qualitative characteristic of information links up with the other qualitative characteristics of accounting information. The qualitative characteristics of accounting information have already been dealt with in chapter 4, and this chapter explores the decision-usefulness characteristic of CARs in more detail.

Figure 6.1: Decision usefulness and other characteristics

Users of accounting Information	Decision makers and their characteristics		
Pervasive constraint	Benefits > costs		
User-specific Qualities	Understandability		
	Decision usefulness		
Primary decision-specific qualities	Relevance	←————→	Reliability
	Timeliness		Verifiability Representational faithfulness
Ingredients of primary qualities	Predictive value Feedback value		Neutrality
Secondary and interactive qualities		Comparability (including consistency)	
Threshold of Recognition	Materiality		

Source: FASB (1980) in Belkaoui (2004:186)

The characteristics of the decision-usefulness approach are the following;

6.2.2 Materiality

According to FASB (1980) in Belkaoui (2004:187), the characteristic for the recognition of transactions and events is materiality. Events and transactions must therefore be material before they will be recognised. This characteristic is applicable to both the MFIS that captures and discloses statutory information, and the DIS that captures and discloses discretionary information. Immaterial information will not necessarily be useful to decision makers (users).

6.2.3 Comparability

A further characteristic that contributes to decision usefulness is comparability. Most of the information captured and disclosed by the MFIS is measured, quantified and audited in accordance with the requirements of IFRSs and IASs. The information disclosed in the statutory sections of CARs will therefore be more comparable from year to year and amongst business sectors than the information disclosed in the discretionary sections of CARs. All information captured and disclosed by the DIS is not necessarily measured, quantified and audited. Intellectual capital for example is more difficult to measure and is therefore disclosed in the discretionary sections of CARs. The information disclosed by the DIS could be done in a more structured way if the disclosure guidelines of an OFR were used. However, for discretionary disclosures comparability is more difficult to achieve, as circumstances and context differ from year to year and amongst business sectors.

6.2.4 Predictive value

Predictive value helps users to evaluate past, present and future events. Sayther (2004:6) reports: “Users of financial statements have expressed strong interest in developing reporting standards which enhances predictive value.” Accounting practices therefore need to be developed to produce disclosures with predictive value and information for valuation decisions (bearing in mind that the preparation of CARs may be a very expensive exercise for which the benefits may be difficult and perhaps impossible to determine). Stakeholders are also interested in information about entities’ expectations of future performance and what will drive it (Topazio, 2007:2). The MFIS is concerned with statutory disclosures reports primarily (apart from post balance sheet events and contingencies) on past events and occurrences. The DIS could be used to report on forward-looking information.

Users could do the following to model the future (Topazio, 2007:2):

- Use forward-looking attitudes and language throughout the report.
- Use the group’s strategy (PWC, 2006f:1) as the basis for describing current and future performance.
- Describe the external trends likely to affect the group’s business environment, supported by quantifiable, externally sourced forecast data.
- Give targets for each KPI.

- Identify products in the pipeline and their market potential.
- Provide an outlook section for each operating division.

Preparers of CARs could therefore make use of the discretionary section to report on this forward-looking information, but need to take care not to speculate about future events and just to report on known future developments.

6.2.5 Feedback value

Feedback value helps users to confirm or correct prior expectations. The statutory disclosures of the MFIS as well as the discretionary disclosures of the DIS could be used jointly to confirm or correct prior expectations. The MFIS however focuses on past performance, while the DIS focuses on past, present and future performance.

6.2.6 Neutrality

Neutrality may be defined as the absence of bias for attaining some desired result. The disclosures of the MFIS and the DIS therefore need to be free from distortion. As the disclosures of the MFIS are audited the likelihood of bias is less than the disclosures of the DIS, which are subject to limited assurance.

6.2.7 Timeliness

Disclosures of the DIS could be prepared in a more timely fashion than the disclosures of the MFIS. The reason is that statutory disclosures generated by the MFIS must first be audited. However, to meet the requirements of the timeliness characteristic of decision usefulness, disclosures brought about by both the DIS and the MFIS need to be available as soon as possible. XBRL real-time business reporting is a probable solution for addressing timeliness. This issue will be further explored as a statement to be included in the questionnaire for preparers (chapter 9) as statement 14: *It would be useful if financial reporting could also be done in digital form making use of “eXtensible Business Reporting Language” [XBRL]* and in the questionnaire for users (chapter 10) as statement 28.

6.2.8 Verifiability

Verifiability relates to the correctness of information. The disclosures created by the MFIS are verifiable as they are disclosed in accordance with the requirements of IFRSs and IASs. The verifiability of disclosures of the DIS is more complex, as some of these disclosures are not measurable, for example intellectual capital.

6.2.9 Representational faithfulness

Representational faithfulness means to portray what something is supposed to represent. As disclosures by the DIS could *inter alia* also boost the corporate image of a company (see table 10.17 in chapter 10) one could argue that the disclosures of the DIS, in general, might portray what they are supposed to represent to a lesser extent than the disclosures of the MFIS.

6.2.10 Relevance

Relevance has been defined as follows: "... for information to meet the standard of relevance, it must bear on or be usefully associated with the action it is designated to facilitate or the result it is desired to produce. This requires that either the information or the act of communicating exert influence ... on the designated actions..." (Belkaoui, 2004:186). The relevance of particular information will vary according to the perceptions of the user and will depend on their needs and on the particular context in which decisions are made (ibid, 2004:186). The disclosures of the DIS, in general, could be more relevant than reliable, compared with the disclosures of the MFIS, which could be more reliable than relevant. The disclosures of the MFIS are more reliable as they focus on the past and are audited. The disclosures of the DIS, on the other hand, are more relevant as they focus on the past, present and future, but are less reliable as they are subjected only to limited assurance.

6.2.11 Reliability

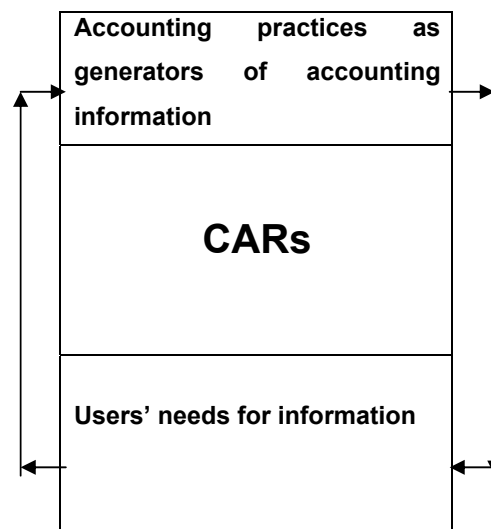
Reliability refers to the "... quality which permits users of data to depend on it with confidence as representative of what it proposes to present ..." (ibid, 2004:186). Whether information is regarded as reliable or not will depend on the extent of the users' knowledge of the rules used to prepare the information (ibid, 2004:186). 91.5 percent of respondents (see table 10.6a of chapter 10) agreed that the disclosures of the MFIS are reliable, while 67.8 percent of respondents (see table 10.6b of chapter 10) were of the view that the disclosures of the DIS are credible. Discretionary disclosures are not audited to the same

extent as statutory disclosures, which explains why the user respondents gave the credibility of discretionary disclosures a lower rating.

If the accounting practices that generate the disclosures of the DIS and the MFIS conform to the above characteristics, they will possess the primary decision-specific qualities. CARs are then the facilitators of the decision-usefulness approach.

Figure 6.2 illustrates the way in which accounting facilitates the process of decision usefulness.

Figure 6.2 The facilitation process of accounting



Source: Own observation

Because we only observe the outcomes of practices, practices are not so readily visible. The generators of the information to be disclosed in CARs are the accounting practices, accounting postulates, assumptions, rules and praxes. The information product disclosed in CARs appears as visible phenomena. Users' needs influence the type of information to be disclosed in CARs. Accounting practices involved in producing this information are not important for the users, but the information product generated by these accounting practices is. This entire process is facilitated by accounting.

The users' need to reduce their uncertainty in decision making drives the type of information disclosures made in CARs that are generated by the MFIS and DIS systems. Certain problems are being experienced with the usefulness of accounting disclosures. Belkaoui (1995:41) comments that the level of readability of accounting messages is troublesome and that the level of understandability of the meaning of accounting is imperfect. The readability of disclosures created by the DIS is less problematic as the accounting messages can be explained with more freedom. The readability of disclosures by the MFIS, on the other hand, is more problematic as technical language is used. The relative usefulness of CARs is therefore still in question. There are a number of possible reasons for CARs' lack of usefulness. One possible reason is that the information in CARs is difficult to understand. This aspect will be further tested in the questionnaire for users (chapter 10) as follows: statement 7: *The information in CARs is difficult to understand*. Another possibility is that preparers of CARs do not fully understand the users' interpretation process.

6.3 Users' interpretation process

User needs influence the types of disclosure included in CARs. Foster (1986:3) argues that shareholders, investors, security analysts and investment advisors can "... act as a pressure group on management and other bodies (e.g. regulatory agencies) that influences the timing or content of information provided to external parties". They need information that can be interpreted. Gouws & Lucouw (1999:108) are of the opinion that the users' need to interpret financial information is out and out the *raison d'être* of accounting. This also holds true for the interpretation of information presented in CARs. The discretionary disclosures of the DIS may help the interpretation process. The statutory and discretionary information in CARs is a human invention, an artefact designed by humans to address certain human needs. As a social activity, CARs have a multipurpose role and influence and are themselves influenced by human needs and behaviour. Although the annual report is used extensively by analysts (Clatworthy & Jones, 1999:43), there are a variety of other users as well. The variety and diversity of CARs users is a result of differences in culture, beliefs, education, perceptions, behaviour and so forth. This variety and diversity of users complicates the task of preparers in providing information in CARs that will address everybody's needs. Lee (1994:219) states that "... the audiences of annual reports extends beyond stockholders and employees ...". New

ways for addressing this challenge need to be considered. The discretionary section of CARs can be used to address the needs of different stakeholders. Belkaoui (1989:8) recommends a strategy for informing the users of corporate reports better. This strategy entails exposing them to various accounting reports from various sources. This implies that not only could the statutory section in CARs be used, but also the discretionary information section in CARs, which could be used to explain the context so that users understand the statutory disclosures better. The disclosures of the DIS need to fill the gap the statutory disclosures of the MFIS cannot in order to reflect the big picture of a company. Interim financial reports could also be used. The use of interim financial reports will be further explored in the questionnaire for preparers (chapter 9) as follows: statement 19: *Interim financial reports covering the same financial period as CARs are/should be included in CARs* and in the questionnaire for users (chapter 10) as statement 11.

It therefore follows that one accounting report like CARs may have many users. However, the act of examining multiple accounting reports and information takes on a new character in contrast to the activities involved in reading a single “sacrosanct” accounting report such as traditional financial statements. Foster (1986:x) is of the view that “with the increased use of computer based analysis and the availability of large, highly disaggregated data bases, it is likely that much of financial statement analysis will take place without direct access to traditional financial statement ...”. Financial statements are one of many information sources available (Foster, 1986:10). The use of other sources of information will be explored in the questionnaire for users (chapter 10) as follows: statement 24: *CARs are not the only means of obtaining information on listed entities for decision-making purposes. There are other sources of information that can be used.* The disclosures generated by the discretionary accounting practices of the DIS complement the statutory disclosures of the MFIS of modern day CARs. Different reports and different information can be compared, cross-referenced, combined and selected. Much of this information can be included in the discretionary sections of CARs.

The interpretive process of users is a result of an imagined and anticipated future (Gouws & Lucouw, 1999:108). The usefulness of disclosures in CARs is closely related to future expectations. Meaning is continuously shaped by the appearance, observation and interpretation of new knowledge (Littlejohn, 1989 in Gouws & Lucouw, 1999:108) and

knowledge is grounded in a ~~rowing~~ movement. The evolving disclosures in CARs created by accounting practices in transition shape the meaning they have for users.

Gouws & Lucouw (1999:109) report that what make sense in one context can change or even lose its meaning when communicated to users in a different context. The disclosures of the DIS therefore need to provide the contextual information in order to understand the statutory information disclosed by the MFIS. The comprehension process of information by users will be enhanced if users use both types of information, namely that disclosed by the MFIS and the DIS, as these disclosures are complementary. In this way users will grasp the big picture.

The decisions taken by users are a result of an interpretation process. The importance and significance of the statutory information generated by the MFIS in CARs and the discretionary information generated by the DIS in CARs arise from and depend on an appreciation of the business environment context from which the information in CARs is taken. This interpretation process is a process consisting of human actions. Therefore preparers and users from different disciplines and backgrounds have to find each other in order to disclose meaningful information. These preparers and users could negotiate on the types of information to be communicated because "... having the full picture – a true, a fair view of something – depends on people deciding that they have the full picture" (Hines, 1988:253).

The main objective of the interpretation process is to discover meaning. The generation of meaning depends on extracting the tacit and subjective insights, intuitions and beliefs of users (Nonaka, 1998 in Gouws & Lucouw 1999:104). Meaning is generated by the discovery (observing and interpretation) of financial and other data presented in CARs.

Gouws & Lucouw (1999:104) report that knowledge from financial information is formed as a result of the relationship between the known (the information disclosed) and the knower (user). Likewise, meaning is established as a result of the relationship between the disclosures in CARs and the users. Gouws & Lucouw (ibid: 104) contend that it must be borne in mind that any interpretation of reality is strongly influenced and conditioned by subjective, theoretical and cultural forces. Beliefs and values are used to interpret the meaning of business information in CARs and to decide what action to take. Preparers could consider the users' interpretation process when disclosing decision-useful information in CARs. The DIS that discloses discretionary information in CARs has much more freedom to be of value for users in their "meaning creation" process. The MFIS is governed by GAAP and rules of disclosure; meaning creation is therefore more difficult.

6.4 CARs as an instrument in decision making

Two systems are responsible for the disclosures in CARs. The one system, the MFIS, generates statutory disclosures governed by GAAP. This system on its own cannot provide all the information useful to stakeholders, as it only reports events and transactions that are measurable. The other system, the DIS, generates discretionary disclosures, including contextual information, and fills the gap the statutory disclosures cannot provide (e.g. it reports on intellectual capital, which is difficult to measure) in order to reflect the full picture. Analysts in the past have indicated certain measures that they consider valuable that were not adequately reported (Clatworthy & Jones, 1999:44) on in annual reports, namely:

- Market share (36% of analysts considered this deficient)
- Employee productivity (35% deficient)
- New product development (26% deficient)
- Research and development productivity (47% deficient)
- Intellectual property (32% deficient)

These disclosures can easily be dealt with in the discretionary section of CARs.

Research evidence also suggests that discretionary narrative disclosures in annual reports are of great importance even for skilled users, such as financial analysts, who are among the prime users of financial accounting information (Skipper, 1991, in Smith & Taffler, 2000:624). The DIS that generates discretionary disclosures in CARs could fulfil this role. Users create their own reality and must make decisions on the basis of limited data (Bernstein, 1996:73). The MFIS and the DIS need to disclose enough information useful to users.

Traditionally, the financial statements at the top of every analyst's list (Knutson, 1993:16) have shown and are still showing outcomes only – a focus that concentrates entirely on the output of a system. Financial statements seldom inform users on how the results were accomplished. According to Gouws & Lucouw (1999:105), in the interpretation process it is important to disclose information about the various inputs and processes of the accounting and financial information presented, as these will give an indication of the changes in forces, processes and capabilities that determine the numbers (outputs). The DIS that discloses discretionary information in CARs could be used to disclose more useful information about the inputs and processes that produced outputs. CARs is only an instrument in decision making if users use both sources of information, that is, the statutory disclosures created by the MFIS complemented by the discretionary disclosures generated by the DIS.

6.5 Information and perception

Perception reflects the way in which decision makers filter, select and interpret certain types of information. Gouws & Lucouw (1999:108) maintain that users' perceptual frameworks allow them to use their previous experiences, which regulate their perception in selecting and interpreting information.

On their own, perceptions are isolated experiences having little intellectual value, but "perceptions may influence the weights placed upon the presented information" (Rodgers,

1997:39). For the interpretive user, meaning can only be discovered through active participation and observation. Different users see different things in the information streams disclosed in CARs because they use different perspectives and conceptualise them in different ways. Perspective calls for the breadth of outlook necessary to grasp the true and full significance of things in order to make well-grounded judgements about them (Mautz & Sharaf, 1961:11). Users of the information in CARs may therefore mentally construct a whole so as not to lose any information (e.g. consider the information disclosed in CARs as a whole) and only move to the parts (e.g. the statutory disclosures generated by the MFIS and those generated by the DIS) if the interrelationship between the whole and the parts gives rise to enhanced meaning.

6.6 The role of CARs in the enablement of users

Entities in the modern age could adopt a culture of knowledge sharing (Von Krogh, Ichijo & Nonaka, 2000:262). As such the enablement of users *inter alia* is very important. This is confirmed by Cuganesan, Gibson & Petty (1997:433) who maintain that “our goal is to highlight accounting’s potential to serve as an emancipatory technology for the benefit of those people and environments that are presently or potentially colonised, excluded, rendered invisible or exploited by the presently unchallenged operation of the ‘mainstream’ accounting”. Intelligence must be broadly distributed (Wheatley, 1999:110), therefore full disclosure in CARs will be necessary. Full disclosure is defined as the disclosures in CARs generated by the MFIS (the statutory disclosures) and those generated by the DIS (the discretionary/contextual disclosures), as well as disclosures to enable/empower users with “limited authority, ability, or resources” (Objective no. 2 in Trueblood, [AICPA, 1973] in Belkaoui, 2004:169; Wolk *et al.*, 2000:184).

One of the major roles that CARs have to play is in the enablement and empowerment of users. CARs need to provide decision-useful information that could enable (i.e. empower) the users of information to predict future prospects (Objective no. 3, 4, 6 & 10 in Trueblood report [AICPA, 1973] in Belkaoui, 2004:169-172), estimate future prospects (Belkaoui, 2004:195; Saenger, 1993:84; Catrakilis, 1994:1) and make valuation decisions (Belkaoui, 2004:195) about entities. To really understand information, users need to

consult the discretionary disclosures of the DIS that provide contextual information and also the statutory disclosures of the MFIS. In this way they will grasp the big picture of the company.

While forward-looking information is uncommon in the statutory disclosures of the MFIS in CARs, it appears more frequently as part of the discretionary disclosures in CARs generated by the DIS. Forward-looking information would provide users of corporate annual reports with a sound basis on which to construct models for predicting future performance (EBR 360, 2004:4). An abundance of information could still be disclosed in the CARs of entities – Beattie, McInnes and Fearnley (2002:43) feel that a comprehensive business reporting package should be developed (CARs could represent this comprehensive reporting package) to include an analysis by management of (i) past performance (the statutory disclosures of the MFIS and the discretionary disclosures of the DIS can provide this), as well as (ii) forward-looking information (the discretionary disclosures of the DIS); specifically the operating and financial review (OFR) (PWC, 2006d:1) can be used for this purpose), relating to (a) strategy (as part of the discretionary disclosures of the DIS), (b) opportunities (as part of the discretionary disclosures of the DIS), (c) risk (as part of both the statutory disclosures, e.g. risks associated with financial instruments and the discretionary disclosures), (d) disclosure about intangible assets (as part of the statutory disclosures of the MFIS – where intangibles can be measured in accordance with IFRSs and the discretionary disclosures of the DIS, if intangibles are difficult to measure, (e) the value creation process (as part of the discretionary disclosures of the DIS) and (f) nonfinancial performance measures (as part of the discretionary disclosures of the DIS).

The directors' report, as part of the statutory disclosures could also include an enhanced business review. Deloitte (2006:54) describes the aspects that should be covered in Enhanced Business Reviews for Directors' Reports, which should include amongst other things a review of the business of the company; a description of the principal risks and uncertainties facing it and an understanding of the development, performance or position of the business of the company. The EBR will be tested further in the questionnaire for preparers (chapter 9) as follows: statement 18a: *The directors' report should include an Enhanced Business Review (EBR) covering, inter alia, a discussion of the operating*

results; statement 18b: *The directors' report should include an Enhanced Business Review (EBR) covering, inter alia, a discussion of the financial situation*; statement 18c: *The directors' report should include an Enhanced Business Review (EBR) covering, inter alia, a discussion of forward-looking information* and statement 18d: *The directors' report should include an Enhanced Business Review (EBR) covering, inter alia, a discussion of business risks*. This issue will also be included in the questionnaire to users (chapter 10) as statements 9a, 9b, 9c and 9d. The MFIS and the DIS would therefore be able to provide the information to be included in CARs as a comprehensible business reporting package. Information that would enable users to predict future performance would be most valuable. It is acknowledged that this type of information would be difficult to express an audit opinion on.

6.7 Summary and conclusion

In this chapter it was shown that the users' need for decision-useful information for reducing uncertainty and risks and optimising opportunities is the primary driving force that determines the types of ultimate disclosure in CARs. It was demonstrated that decision usefulness is the most important qualitative informational characteristic.

The users' interpretation processes were explored and it was found that their main objective is to discover meaning. It was shown that the users' needs for interpreting financial information are out and out the *raison d'être* for disclosures in CARs. Meaning is generated by the discovery (observing and interpretation) of financial and other data presented in CARs. However, additional research is needed in terms of both users' individual abilities to process the financial in CARs and the 'black box' effect when going from individual users to the aggregated level of the market (Wolk *et al.*, 2000:177). Users must play an active role in extracting the information they need.

The role of CARs as an instrument in decision making was also explored. Two systems are responsible for the disclosures in CARs. The one system, the MFIS, generates

statutory disclosures governed by CAR. This system on its own cannot provide all the information useful to stakeholders, as it only reports events and transactions that are measurable. The other system, the DIS, generates discretionary disclosures, including contextual information, and fills the gap the statutory disclosures cannot provide (e.g. it reports on intellectual capital which is difficult to measure) in order to reflect the big picture.

The role that perception plays in selecting and interpreting information was also explored. Different users see different things in the information streams disclosed in CARs because they use different perspectives and conceptualise them in different ways. In the preparation process of CARs, preparers may need to consider the different perceptions of users.

The role of CARs in the enablement of users was explored. CARs need to provide decision-useful information that could enable (i.e. empower) the users to predict future prospects, estimate future prospects and make value decisions about entities. Forward-looking information would assist users in predicting the future prospects of entities.

The conclusion is that financial statement information is a subset of the many disclosures that entities release to external parties and the content of nonfinancial disclosures can affect the usefulness of financial statement information for external parties (Foster, 1986:45). For entities to provide decision-useful information, it is necessary to obtain feedback from users via proper feedback systems (e.g. questionnaires provided as part of CARs to be completed and returned by users), or users should negotiate with entities (AICPA, 1994:9) to give an indication of what types of information need to be disclosed in CARs. Feedback may result in seismic shifts in the disclosures in CARs. It will be necessary to distinguish between the information needed and non-essential information (AICPA, 1994:11). Non-essential information will only increase the cost of CARs to entities. Decision-useful information should be limited to what is essential for decision making.