ENVIRONMENTAL SCANNING – A SOUTH AFRICAN CORPORATE COMMUNICATION PERSPECTIVE WITH SPECIAL EMPHASIS ON THE TERTIARY SECTOR

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Submitted in fulfilment for the requirements of the degree

DPhil (COMMUNICATION MANAGEMENT)

In the

FACULTY OF HUMANITIES

UNIVERSITY OF PRETORIA

SUPERVISOR: PROF R S RENSBURG

Pretoria **May 2002**

ACKNOWLEDGEMENTS

- God Almighty for His grace
- Prof Ronél Rensburg, my promoter. Thank you for your inspiring guidance.
- Benita Steyn for sharing her passion for the communication management science
- Rina Owen of the Department of Information Technology
- Denise Jankowitz and Rhuhanda Scholtz for the data capturing
- Pieter Jansen van Vuuren
- Kobus and Rolene Pienaar. The best example by far

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ABSTRACT

Change and the management thereof has become an integral part of management. To survive and prosper in the future, organisations have to understand the internal and external forces of the constantly changing world in which they operate.

One example of the implications of change is the role of the communication practitioner that evolved from that of a technician to a strategist during recent decades. The communication practitioner has to realise that research is an effective tool to prove the value of the communication function.

This study explores the use of environmental scanning as a strategic tool for an organisation to obtain a competitive edge. Knowledge management and the measurement of relationships in communication are closely related to environmental scanning.

Environmental scanning is a process by which an organisation learns about events and trends in the internal and external environment. It helps establishes relationships between these trends and considers the main implications for problem identification and decision making.

Any scientific research should be done against a theoretical framework. The systems theory and the information gap theory provide the theoretical framework for this study.

Empirical research was conducted amongst the principals, marketing directors; information technology directors and scenario planners of all universities, technikons and registered private universities in South Africa. A total response rate of 58.7% was realised. A major finding was that, although most universities and technikons conduct environmental scanning and rate it as very important, there is no formalised, strategically aligned effort to integrate the findings with the strategic direction of the institution.

The impact of environmental scanning on the respondents' institutions is rated as significant to very significant.

A revised model of environmental scanning was subsequently proposed. This model can also serve as a basis for future research and development. In spite of the different ways in which environmental scanning is conducted and applied, it has potential as a strategic tool - specifically to improve the role and contribution of the communication practitioner in the realisation of organisational goals.

OMGEWINGSVERKENNING – 'N SUID-AFRIKAANSE KORPORATIEWE KOMMUNIKASIE PERSPEKTIEF MET SPESIFIEKE FOKUS OP DIE TERSIêRE SEKTOR

ABSTRAK

Verandering en die bestuur daarvan het 'n integrale deel van bestuur geword. 'n Voorvereiste vir die oorlewing en vooruitgang van maatskappye, is 'n begrip van die voortdurend veranderende interne en eksterne omgewings.

'n Enkele voorbeeld van die implikasies van verandering is die rol van die kommunikasiepraktisyn wat die afgelope aantal dekades gegroei het van tegnikus tot strateeg. Die kommunikasiepraktisyn moet besef dat navorsing 'n effektiewe hulpmiddel is om die waarde van die kommunikasiefunksie uit te wys.

Hierdie studie ondersoek die gebruik van omgewingsverkenning as 'n strategiese hulpmiddel vir 'n organisasie. Dit doen aan die hand dat, indien omgewingsverkenning en kennisbestuur korrek uitgevoer, aangewend en strategies belyn is, die kennis wat op hierdie wyse ingewin word, as 'n kompeterende voordeel vir 'n organisasie kan dien.

Omgewingsverkenning is 'n proses waardeur kennis aangaande die gebeure en neigings in die interne en eksterne omgewing ingewin word. Verhoudings wat deel van hierdie proses vorm, word geïdentifiseer. 'n Voorbeeld van die waarde van omgewingsverkenning is dat dit 'n organisasie in staat stel om te onderskei tussen ingrypende en nie-ingrypende veranderinge. Dit voorsien inligting wat 'n organisasie in staat stel om veranderinge te antisipeer en pro-aktief op te tree. Dit stel die organisasie dus in staat om voordeel uit verandering te trek in pleks daarvan dat verandering ten koste van die organisasie plaasvind.

Enige wetenskaplike navorsing behoort teen die agtergrond van ‘n teoretiese raamwerk te geskied. Die sisteemteorie en die inligtinggaping-teorie voorsien die teoretiese raamwerk vir hierdie studie.

Empiriese navorsing is onder die rektore, bemarkings- en inligtingtegnologiedirekteure en scenario-beplanners van al die Suid-Afrikaanse universiteite, technikons en geregistreerde privaat-universiteite uitgevoer. ‘n Noemenswaardige bevinding is dat, hoewel die meeste technikons en universiteite omgewingsverkenning uitvoer, dit in baie min gevalle formeel gedoen word of strategies belyn is met die strategiese rigting van die universiteit of technikon.

Respondente het aangedui dat die impak van omgewingsverkenning op hul instansies belangrik tot baie belangrik is.

‘n Model vir omgewingsverkenning is voorgestel. Hierdie model kan ook dien as ‘n basis vir toekomstige navorsing en ontwikkeling dien. Ten spyte van die verskillende maniere waarop omgewingsverkenning uitgevoer en toegepas word, het dit waarde as ‘n strategiese hulpmiddel. Dit kan in die besonder help om die rol en bydrae van die kommunikasiepraktisyn in die bereiking van organisasiedoelwitte te verhoog.

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CHAPTER ONE
THE PROBLEM AND ITS SETTING

"Extinction is the fate of most species, usually because they fail to adapt rapidly enough to changing conditions of climate or competition. Social organisations often behave in ways similar to biological organisms".

(Gould 1977: 90)

1. THE TITLE

This research is titled: "Environmental scanning - a South African corporate communication perspective with special emphasis on the tertiary sector."

1.1 THE PROBLEM AND ITS SETTING

In this chapter, the problem is stated against the broader background and complexities that influence the problem. The broad objective of this research is to add to the existing knowledge base concerning environmental scanning and focus on the scanning activities of the tertiary education sector. The role of the communication professional in this regard, is also investigated.

The challenges faced by management in a constant changing environment are overwhelming, and managers need all the help they can get. Proactive and knowledgeable communication people are needed. Public relations expertise is not the only prerequisite, the focus is on business and management skills.

Environmental changes, the politicising of the business environment, and the growing involvement of the public sector in regulating the private sector refocused the attention on the role of public relations and communication programmes. The communication manager has an important role both internally

and externally. The communication manager acts as channel between management and the external public. Public perceptions and needs should be communicated to management, changes should be anticipated and appropriate action recommended (Claasen & Verwey 1998: 73).

Management decisions and organisation policy should be communicated to the relevant external publics, while determining at the same time where contributions to social investment can be made. Strategic planning with the purpose of preventing or fielding issues that may have an impact on the organisation also requires the involvement of the communication manager (Claasen & Verwey 1998: 74).

Communication professionals should look ahead, not behind. They are looking at the next big issue, the next trend, not where they have been. Analysis is often an afterthought. In today's results-oriented and measurement-oriented business world, being able to demonstrate benefits to the bottom line is essential.

1.2 A CONCEPTUALISATION OF THE STRATEGIC ROLE OF THE CORPORATE COMMUNICATION PRACTITIONER

Strategic management applies to corporate communication in two important ways:

- The first is the most senior communication practitioner's involvement in the strategic management of the organisation by surveying the environment, helping to define the mission and goals, and developing problem-solving strategies for the entire organisation.
- The second has to do with the corporate communication department managing its own programmes strategically by aligning communication goals to the organisational mission, thereby integrating and co-ordinating its work with that of the organisation (Steyn & Puth 2000: 17).

1.2.1 The boundary spanning perspective

Most authors in strategic management concur that the boundary-spanning roles are involved with (information) inputs to the organisation and (information) outputs from the organisation. Boundary-spanning roles are seen by some as consisting of information processing and external representation, others see the two boundary-spanning roles as being information acquisition and disposal (Steyn & Puth 2000: 18).

In the past, corporate communication practitioners have frequently represented the organisation to the external environment. A relatively new practice in corporate communication is information processing through environmental scanning and programme research.

The boundary-spanning role of corporate communication practitioners can also be viewed as functioning at the edge of the organisation, acting as a liaison between the organisation and its external and internal stakeholders. Corporate communication practitioners are in touch with the real world by having one foot inside and one outside the organisation (Steyn & Puth 2000: 19).

1.2.2 The mirror and window perspective

The communication department's role in the process can be summarised as professionally carrying out the *mirror* and the *window* functions.

The *mirror* function refers to the monitoring of relevant environmental developments and the anticipation of their consequences for the organisation's stakeholders, influencing strategic and communication policies (Steyn 1999: V). Environmental scanning is instrumental in this function of the communication professional as will be debated clearly in this dissertation.

The *window* function refers to the preparation and execution of a corporate communication strategy and policy, resulting in messages that portray all facets of the organisation (Steyn & Puth 2000: 19).

Corporate communication's value in the process of strategy development is that it is a **source of intelligence** regarding the environment, an early warning system that identifies issues before crises erupt. It is the function that assists top management in interpreting and using the information. The corporate communication manager and department should be in an excellent position to provide this interpreting function, because of wide contact with the external and internal environment and an outside view of the organisation.

The role of the corporate communication practitioner has developed from being a communication technician to being a strategic manager. The South African chief executive officer now also expects the communication manager to play the role of strategist and participate in strategic management by delivering insight on the stakeholders of the organisation.

Grunig & Hunt (1984: 115) noted that top managers in organisations "just assume their organisations need a public relations department" but seldom ask why. Noting the importance of programme goals and objectives, they observed that communication managers frequently do not share that view. "They think in terms of process; how many press releases they must get out, when must the annual report be done, how can the latest media crisis be handled; and not in terms of effects". "Why was the press release needed, what should the annual report communicate, how should the media ideally behave in a crisis?"

Perceptions are that the corporate communication function is focused on their own activities and media, on achieving *communication* goals and objectives without necessarily linking them to *business* goals (Steyn 1999: v).

Once communication is properly regarded as a means to an end, a tool for achieving some desired end state, communication managers and public relations practitioners must consider the effects of public relations programmes.

In the 1990s evaluation has been at the centre of a continuous debate in public relations. This situation is not only asking for an intensified discussion, but are also looking for best practice which is seen as a necessary step for further development towards professionalism.

Research is the basis of good communication practice. It is essential for accurate information, particularly when drawing up a communication programme and for later evaluation of that programme (White 1998:14).

Research should be the basic tool in any corporate communication operation. Without a research orientation and the skills required to make it part of an organisation's adaptive subsystem, corporate communication cannot function as part of the management decision making process. Several studies show that corporate communication does not get invited to the decision-making table unless it can systematically gather and verify information (by means of research) to contribute to the process (Steyn & Puth 2000: 145).

According to Steyn (2000: 10) the present focus on evaluating public relations activities has not, and will not, provide the seat at the boardroom table. Top management is not interested in the products, programmes and activities the communication team has created – they are looking for solutions to critical problems.

As an activity that belongs in every phase of public relations, "research makes the practice of public relations more responsive, effective, useful and professional" (Broom & Dozier, 1990: 3).

Research is needed for a thorough investigation of a situation so that clear objectives can be established and a relevant strategy developed. Research is needed to understand the characteristics of salient publics and to choose appropriate media for reaching them. Research is used to monitor a programme and make changes as required. When a programme is complete, research is used to evaluate its degree of success in meeting its objectives (Walker 1997:98).

"The challenge for the communication profession is to use environmental scanning and related research techniques to identify organisational problems such as transformation, or employment equity, or mergers and its consequences for the organisation's strategic stakeholders" (Steyn 2000: 10). The initiative should come from the public relations function, thereby using communication as a solution to key organisational issues.

According to Foster (1998: 5) the key to success for any public relations department - and the professionals within it – is the respect with which they are regarded by the chief executive officer. If the chief executive officer respects the function, public relations flourish as a powerful corporate component. If the chief executive officer considers the function more of a "fluffy afterthought", public relations languishes in second class status.

Fosters' (1998: 10) research leaves no doubt about the emphasis chief executive officers place on the superior level of performance they expect from their public relations executives. The expectations have risen and continue to rise. These expectations are tied to an intimate knowledge and understanding of the business plan, the ability to work closely with other corporate disciplines, an awareness of the dynamics of global business, and keeping pace with technology.

Steyn (Steyn & Puth 2000: 146) conducted a research study in South Africa during 1999-2000. The study investigated the *expectations* that chief executive officers have for the most senior practitioner responsible for the corporate communication function, and the chief executive officers' *perceptions of the performance* of their own senior practitioner.

The problem was identified as a lack of understanding between the most senior corporate communication practitioner and the chief executive officer on the role of corporate communication in the organisation. A literature review of the body of knowledge pointed to the fact that many chief executive officers in the United States and Europe are dissatisfied with the performance of their corporate communication practitioners. The main reason seem to be their failure to play a strategic role in organisational decision making, and to link communication to the achievement of organisational goals and thus contribute towards organisational effectiveness. The question of interest was whether this problem also exists in South Africa (Steyn & Puth 2000: 146).

It can be said that the situation described in the international literature concerning dissatisfaction with the performance of corporate communication practitioners, also seem to be true for South African chief executive officers. Secondly, as overseas, chief executive officers' dissatisfaction seemed to arise from the fact that corporate communication practitioners are not playing a strategic or managerial role in the organisation (Steyn & Puth 2000: 150).

Closely related to this study is the research conducted by Grunig & Hon (1999: 8). This research focus on the long term benefits of improved relationships with the most important stakeholders of the organisation.

For at least 25 years, public relations scholars have asked two fundamental questions: "How do you measure the effects of public relations" and "How do you show the value of public relations to an organisation and to the society?"

Communication researchers have known how to measure several effects of public relations for many years. They know how to evaluate the *effects* of public relations techniques and programmes better than they know how to measure the *value* of public relations to an organisation and to the society (Grunig & Hon 1999: 8).

In the strategic management process, managers evaluate data on the operations and external environment of the organisation in light of the values and priorities of influential individuals and groups - often called stakeholders. The aim of the process is the formulation and implementation of strategies that achieve the organisation's long-term mission and short-term objectives.

Grunig & Hon (1999:8) suggests that the value of public relations can be determined by measuring the quality of relationships with strategic publics. Communication programmes can be evaluated by measuring their effects and correlating them with the attributes of a good relationship.

Most public relations evaluation has been one-way, designed to measure the effects of communication on publics. Measuring relationships, however, assumes a two-way communication process with effects on both parties in the relationship. Environmental scanning is a most suitable tool to do this.

Blanken (1999: 1) states that one must take a moment to reflect on what the boards of most companies do during meetings. Consider how much time is spent investigating how the world will change in five or ten years' time as opposed to discussing short-term operational issues. Are companies spending too much time dwelling in the past and present?
There is a direct relationship between an enterprise and the environment in which it functions. Because the environment is so uncertain and unstable, management cannot make appropriate decisions unless it monitors the environment constantly. Enterprises function in a rapidly changing environment

that is made complex by variables such as technology, economics, government action and socio-cultural trends.

Change has become the essence of management, so to survive and prosper in the future, the organisation will have to perfect “outside in” thinking skills: to relate information about developments in the external world to what is going on internally. The first step is to identify emerging issues before they strike. Because significant issues may emerge from unexpected places, it is important to scan the macro environment for social, technological, economic, environmental and political developments (Boyers 1997).

Trying to adapt to the information age, most organisations are undergoing radical re-engineering, rejuvenation, or transformation. Driving much of this change agenda is a fundamental shift in the competitive environment. The rapidly increasing pace of environmental change is making it imperative for businesses to develop strategic and organisational flexibility. Environmental analysis and information gathering are first steps in this process.

Organisations are pressured to make larger investments in personnel and systems for gathering environmental information. New technologies like the Internet are making it easier to acquire this information. In order to avoid information overload, managers and organisations must develop effective strategies for acquiring relevant environmental information in a timely fashion.

For many organisations there will be a need for radical transformation rather than incremental shifts. The challenge is to uncover ways to implement and manage change successfully. More than ever, the future will have to be anticipated and action will have to be taken in the face of its uncertainties (Blanken 1999: 1).

To complicate the matter even further, it is impossible and misleading to explore a single trend without considering how it interacts with the others – the boundaries between issues are blurring. Many authorities are of the opinion that

trying to prioritise trends seems an arbitrary exercise. Examining the whole range of issues holistically is seen as a more important and powerful way to capture the complexity of the situation.

Business strategies will depend on information that comes from outside the organisation, not from inside the organisation as before. Information about technologies, new markets, non-customers and products and services are important.

There is so much information out there, few people are able to get a grip on it. Information is all the stuff that overflows from the in-box, which people end up storing in a file somewhere. Knowledge is information synthesised for your use to make changes, to plan for the future. The goal is not to be in the information business, but to gather information, study it and create a knowledge format.

The organisation of today is not the organisation of tomorrow. We cannot continue to do things the way we always have. Communicators will be called upon to become their organisation's resource specialists, to gather as well as deliver information. According to Schultz & Sherman (1999) to see the impeding threat or opportunity requires people in the organisation to take action to challenge the assumptions or rules that had previously made their organisations rich.

Both practitioners and scholars in the field of strategic planning have been devoting attention to "environmental scanning and forecasting" as an important element of planning. A number of environmental scanning approaches have been developed – varying from short-term forecasting to "futuristic" planning. Many industrial and governmental organisations have adopted various of these practices.

The objective of environmental scanning is to identify and quantify strengths and weaknesses that influence or will influence the enterprise's activities. The profusion and complexity of pertinent environmental information make it necessary to create a separate section within the enterprise to monitor the environment formally (Du Toit 1991: 182).

Literature on this subject shows that relatively little formal environmental scanning has been undertaken by South African enterprises but that there is a definite need for such systems.

Scanning and forecasting practices vary widely in concept, scope and operational detail. Also, various practices have had different degrees of success in assessing the environment. An objective of this research is to shed some light on the practical state of the art of environmental scanning and the forecasting function in organisations.

The importance of good environmental information has long been stressed by researchers. Yet only limited research has been done on how environmental trends become known to decision makers. There does not exist a sound theoretical framework that managers and organisational leaders can use to develop a strategy for environmental scanning.

Each company must learn to scan continually, master the art of scenario planning, and adopt a new mind-set about strategic planning. However, without true leadership the process of looking at the future is reduced to a mere intellectual exercise (Blanken 1999:1).

1.3 THE PROBLEM STATEMENT

The formulation of the actual problem gets attention in this section. The problem can be divided into the problem and sub-problems.

Change and the management thereof has become managers' most important challenge. Organisations have to understand the internal and external forces of the constantly changing world in which they operate. Due to the magnitude of available information, variables and change, not many companies are successful in this regard.

How do organisations stay ahead of these changes and the challenges it present to their business and core function? How do they know what are important to their specific industry and how they must react?

One example of the implication of change is the role of the communication practitioner that evolved from that of a technician to a strategist during recent decades.

The tertiary education sector is changing fast and constantly. As is the case in most of the other market sectors, competition is getting harsher by the day. It is furthermore a sector suited to fit the electronic era that results in a true global business without geographical boundaries. This further contributes to an increase in the number of competitors in this arena.

Sub-problem one

To determine how to measure and evaluate the contribution of environmental scanning.

Sub-problem two

To determine the role of corporate communication and the communication manager in environmental scanning.

1.4 RESEARCH QUESTIONS

In this section, the research questions are stated.

1. Is environmental scanning being conducted in South African universities and technikons?

2. If the answer to the above question is yes, who is responsible for this scanning process?

3. How is the environmental scanning conducted in the tertiary education sector?

4. How should environmental scanning be conducted and implemented at South African universities and technikons?

5. Can environmental scanning contribute to the realisation of the goals of the institution?

1.5 RESEARCH OBJECTIVES

Research Objective One:

The first objective is to contribute to environmental scanning research by examining the environmental scanning practices and information source usage of international and South African companies and executives.

Research Objective Two:

The second objective is the execution of empirical research with reference to the environmental scanning processes used at South African universities and technikons.

Research Objective Three:

To determine how environmental scanning should be implemented and conducted.

Research Objective Four:

To investigate the possible contribution the communication professional can make in the environmental scanning process.

Secondary Objectives:

To determine the fundamentals of environmental scanning

Another secondary objective is to contribute to the knowledge base of communication research and environmental scanning in South Africa.

1.6 DEFINITION OF TERMS

Various terms that will receive attention in this research will be discussed in this section.

1.6.1 Environmental scanning

Environmental scanning is a process in which an organisation learns about events and trends in the external environment, establishes relationships between them, and considers the main implications for problem identification and decision making.

The term "**scanning**" was first conceptualised by Frances Aguilar (1967) as the way in which managers studied the environment. He defined environmental scanning as

> *"Scanning for information about events and relationships in a company's outside environment, the knowledge of which would assist top management in its task of charting the company's future course of action."*

Environmental scanning is a simple process in that the critical information required to analyse the industry and market is often readily available to all competitors. However, it is a complex process in that the number of areas that have to be monitored may be large (Steyn 2000: 75).

According to Dozier (1986: 177) *environmental scanning* is the "detection of environmental turbulence or change likely to affect the homeostasis of the system". In practical terms, environmental scanning is remaining sensitive to "what's going on out there". Practitioners use both formal and informal information-gathering techniques to scan organisational environments.

1.6.2 Knowledge management

Knowledge management can be defined as "the harnessing of a company's collective expertise wherever it resides and the distribution of that expertise to the right people at the right time." It is not a product, but a process – the process

of gathering, managing, and sharing the employee's knowledge capital (Hardijzer 2000:24).

1.6.3 Public Relations

The Public Relations Institute of Southern Africa defines public relations as "the management, through communication, of perceptions and strategic relationships between an organisation and its internal and external stakeholders".

Cutlip, Center & Broom (1985:1) define public relations with the focus on the relationship between an organisation and its publics: *"Public relations is the management function that identifies, establishes and maintains mutually beneficial relationships between an organisation and the various publics on whom its success or failure depends."*

To effect and maintain these relationships, these authors see research as the "foundation of effective public relations."

Public relations are an applied social science, concerned with the behaviour of groups in relation to each other. Public relations practitioners are concerned with:

- Building relationships
- Events, trends and issues which have the potential to disrupt or otherwise change important relationships
- The clear articulation of interests at stake in these relationships
- Effective communication between groups (White 1998:15).

1.6.4 Communication

"Communication is the process of transacting meanings through written, oral and nonverbal messages" (Sorrels 1984: 4).

Communication is how people arrive at shared meanings through the interchange of messages. "Although *communication* has been defined in a variety of ways, when we define it as the process through which meaning and social reality are created, many things become communication events" (Rubin, Rubin & Piele 1993).

1.6.5 Corporate communication

Corporate communication includes the functions of public relations and can be defined as the "*integrated approach to all communication produced by an organisation, directed at relevant target groups*", both internal and external (Van Riel 1995: 24).

Grunig & Hunt (1984) describe corporate communication as "the management function that establishes and maintains mutually beneficial relationships between an organisation and the publics on whom its success or failure depends".

1.6.6 Business communication

Business communication is the process of transacting meanings through written, oral and nonverbal messages internally and externally to organisations of people, working together to produce and market goods and services for profit, and to reach personal and business objectives (Sorrels 1984: 4).

1.6.7 Corporate communication research

Corporate communication research can be defined as a "systematic inquiry aimed at providing information to solve corporate communication problems" (Steyn & Puth 2000).

1.6.8 Evaluation

According to Steyn & Puth (2000:158) the term measurement is often confused with evaluation. *Measurement* is the process of assigning numerical values to some or all attributes of the study object.

Evaluation must involve consideration of objectives set for important relationships and must assess impacts on the behaviour of groups and individuals involved (White 1998:15).

Evaluation is an ongoing process if you are talking about long-term programmes. Review applies to long term programmes. It would generally be sensible to take a long, hard look at the programme each year. You will look at what the evaluation over the year has shown you, revisit the programme objectives and scrutinise the strategy (Gregory 1996: 138).

1.6.9 Research

According to Broom & Dozier (1990), "research is the controlled, objective and systematic gathering of information for the purposes of describing and understanding".

Research is an objective, systematic, empirical and cumulative process by which we seek to solve theoretical and applied problems. Such problems are obstacles to our knowledge and understanding of communication.

Research is objective because we try to be impartial when seeking the best solutions to the research problem. It is systematic because we move through a series of stages when conducting research. It is empirical because we look beyond ourselves to observe and to gather evidence. And, research is cumulative because it builds upon past investigations (Rubin, Rubin & Piele 1993).

1.7 METHODOLOGY

This study follows a two-stage research design: the first part is an exploratory study with a review of the origins and methodological debates of communication research. Key problems of the process of establishing effective practices are pinpointed and discussed.

Environmental scanning as strategic research tool is discussed in length.

The second part is a formal, descriptive, qualitative study. Qualitative studies differ markedly from quantitative research in that it is "analytic and interpretative – it attempts to examine phenomena in a holistic manner". Events or extraneous variables are not controlled – the purpose is to capture the normal flow of events (Du Plooy 1995: 33).

Most empirical research on environmental scanning has focussed on relationships between scanning behaviour (frequency, scope, sources used and environmental conditions such as environmental uncertainty, perceived threats and perceived opportunities).

1.8 RESEARCH DESIGN

Research design includes the unit of analysis, the prospective time frame, the population and sampling. Researchers observe, describe and often explain the relationships between variables or events.

The data collection process used occurs over two distinct phases:

Phase 1:

This phase is used to develop and finalise the data collection instrument (questionnaire). The following procedures were followed:

Step 1: Develop the survey instrument.

Step 2: Pilot test the survey instrument to ensure its validity and suitability to collect the required data.

Step 3: Pilot test the data collection procedure.

Phase 2:

This phase was used to collect the data for the study.

Research can be descriptive, explanatory or exploratory (Rubin, Rubin & Piele 1993).

As with basic and applied research, these types are differentiated by the researcher's goals and purposes. Descriptive research, perhaps the most rigorous of the three types, attempts to measure frequencies or make predictions based on stated hypotheses. Explanatory research studies attempt to explain,

based on tested hypotheses, operational phenomenon over time. The goal of exploratory research is to discover and define operational phenomena that will become the basis for the development of hypotheses for future studies (Maier 1992: 98).

The design of this study is descriptive in nature.

1.8.1 Descriptive research

Descriptive research captures the flavour of an object, a person, or an event at the time the data are collected, but that flavour may change over time (Dane 1990: 7). "Rather than assessing whether or not something is going on, descriptive strategies involve assessing exactly what is going on".

According to Mouton (1996: 190) "descriptive statements make claims about how things are; what the actual state of affairs or fact of the matter is".

Descriptive research is designed to identify basic facts, patterns of relationships and trends. It attempts to discover answers to questions *who, what, when, where* and sometimes, *how.* It does not attempt to answer the question *why*, but only describes or defines a subject, often by creating a profile of a group of problems, people or events. It is often used in strategy formulation, and for purposes of planning, monitoring and evaluating (Cooper & Schindler 1998:12).

Exploratory and descriptive research differs in many ways, but also have a lot in common. "They blur together in practice".

1.8.2 Unit of analysis

The unit of analysis is the person or object from whom the researcher collects data. Such data can only describe that specific unit, but when combined with

similar data collected from a group of similar units, provides an accurate picture of the group to which that unit belongs (Cooper & Emory 1994: 114).

Units of analysis fall into broad categories such as individuals, groups, organisations, time periods and social artifacts. In this study, the unit of analysis is all universities, registered private universities and technikons in the country.

Chief executive officers (Principals or Rectors), scenario planners/information technology directors and communication/marketing directors of all universities, registered private universities and technikons in South Africa completed the questionnaires.

1.8.3 Time Frame

The research data was collected during the second part of 2001 and the first month of 2002.

1.8.4 Sampling

Before the specific questions can be constructed, how to best obtain the information must be determined. In this research, no sample was drawn. The entire population was included in the research. Dane (1990: 336) defines population as “all possible elements that could be included in the research”.

A population is the total collection of elements about which we wish to make some inferences. A **census** is a count of all the elements in a population.

In this research all the universities, registered private universities and technikons are included.

1.8.5 Piloting and re-design

Piloting is an important phase in the research process. A pilot study was first conducted to pre-test the questionnaire and to expose obvious problems. Minor changes were made to the questionnaire before it was sent to the respondents.

1.8.6 Reporting

A full report of the research findings was compiled (Chapter Five). This is the interpretation of the data produced, with communication and marketing implications, leading to actionable conclusions and recommendations.

1.9 DELIMITATIONS OF THE STUDY

This study explores the use of environmental scanning as a strategic tool for an organisation to obtain a competitive edge. It further investigates the current status of environmental scanning in South Africa.

Empirical research forms part of this investigation. A model is developed and presented as a starting point.

Information technology and the application thereof in environmental scanning do not receive attention in this research study. Forecasting techniques form part of the application of information technology.

Knowledge management is closely related to environmental scanning. Although knowledge management and information overload is addressed in Chapter Three, it is not the main focus of this research.

Chaos theory, which is related to knowledge management and is a new and important field, is not covered in this research.

There is a need for further research about the link between the above mentioned topics and environmental scanning.

1.10 OUTLINE OF THE RESEARCH

An outline of the research will be given in this section.

CHAPTER ONE: THE PROBLEM AND ITS SETTING

In this chapter, the problem and research questions are stated, and the conceptualisation, delimitations, assumptions, and importance of the study are discussed. A short overview of the research strategy and methodology are also provided.

CHAPTER TWO: THE THEORETICAL FRAMEWORK OF THE STUDY AND THE RELATIONSHIP WITH THE SYSTEMS THEORY

This chapter introduces the theories used as a framework for the study. The systems theory and the information gap theory provide the theoretical base for this study.

CHAPTER THREE: CONCEPTUALISATION OF COMMUNICATION RESEARCH

The development and importance of communication research receives attention in Chapter Three. The communication professional and research are addressed. The importance and measurement of relationships in communication also receive attention. Reputation management and knowledge management are also discussed.

CHAPTER FOUR: ENVIRONMENTAL SCANNING

Environmental scanning is the acquisition and use of information about events, trends and relationships in an organisation's external environment, the knowledge of which would assist management in planning the organisation's future course of action.

Environmental scanning and the growing need for scanning are discussed in length in Chapter Four. The various environments that need to be scanned, the levels of scanning and scanning techniques are discussed. Previous research on scanning is also included.

CHAPTER FIVE: RESEARCH METHODOLOGY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The research findings are discussed in Chapter Five. The Researcher reaches conclusions and makes recommendations about the effective implementation and management of environmental scanning.

REFERENCES

CHAPTER TWO
THE THEORETICAL FRAMEWORK OF THE STUDY AND THE RELATIONSHIP WITH THE SYSTEMS THEORY

2.1 INTRODUCTION

In Chapter One the research and the research problems was stated against the broader background and complexities that influence the problem.

In this chapter the fundamentals of the systems theory and the relationship with environmental scanning will be investigated.

The importance of strategic planning as a major activity of organisational management is increasingly being accepted by both academics and professional managers. Many who have considered the future needs of organisations have argued that a lack of adequate long range and strategic planning would be disastrous for organisations and for the society.

One of the predominant theoretical lines of thinking underpinning much of public relations practice is the systems theory. The theory states that mechanical, organic and social systems (including organisations) can be defined by their interactions with their environment (Gregory 1999: 266).

As strategic planning moves towards maturity, the viewpoint that is increasingly being applied is that of the organisation as an “open system”. Simplistically this notion holds that an organisation’s growth and survival is dependent on the nature of the environment it faces and those which it may face in the future (Fahey, King & Narayanan 1981: 32).

The systems theory entails the interdependent relationship of the parts of an organisation. The *systems theory* and the *information theory* contribute to investigate the various characteristics of the physical, biological, social and behavioural phenomena. It is not only communication theories, but also have important implications on communication and other socio-cultural happenings (Littlejohn 1983: 34).

According to the originators of the *information theory*, Donohue, Olien & Tichenor, it is defined as follows: "As the infusion of mass media information into a social system increases, segments of the population with higher socioeconomic status tend to aquire this information at a faster rate than the lower status segments, so that the gap in knowledge between these segments tends to increase rather than decrease" (Tichenor et al. 1977: 159-160).

The roots of the information theory are intermingled with the basic transmission model, which conceives communication as essentially the intentional transfer of information from sender to receiver, by way of (physical) channels, which are subject to noise and interference. According to this model, communication is judged by the efficiency and effectiveness in achieving the planned "transfer" (McQuail 1994: 248).

The concept of information has proved difficult to define, because it can be viewed in different ways, but the central element is probably the capacity to "reduce uncertainty". Information is thus defined by its opposite (randomness or chaos).

The insight which led to the development of information theory was the realisation that all the processes which might be said to convey information are basically selection processes. The mathematical theory of communication provided an objective approach to the analysis of communication texts. The

basis for objectivity (quantification) is the binary (yes/no) coding system, which forms the basis for digital computing (McQuail 1994: 248).

The information theory is general enough that it can be applied to written languages, musical notes, spoken words, music, pictures and many other communication signals.

The systems approach is an abstract perceptual framework that is an exceptionally good aid to understanding and practising public relations. The approach identifies the principles common to all systems, the most important of which are wholeness, hierarchy, self-regulation, openness, and adaptability (Lubbe & Puth 1994:41)

The systems theory and the relationship with environmental scanning will now be investigated.

2.2 THE ORIGIN OF THE SYSTEMS THEORY

The development of the general systems theory is one manifestation of the fundamental changes in the nature of scientific analysis. Rather than investigating the universe in a cause and reaction frame of mind, researchers realised that any cause and reaction relationship take place in a more complex system of relationships. Nothing is analysed in isolation, but in terms of their relationship with a larger system (Turner 1991: 118).

These systems of inter influential happenings distinguish that the whole is larger than the sum of its parts. Amongst the modern scientists, Ludwig von Bertalanffy was the first to advocate a General Systems Approach. Various other scientists joined in and the groundwork was established for the General Systems Theory (Turner 1991: 118).

The systems theory grew exponentially in the 1960's. This theory originated as alternative to structural functionalism. It has its origin in the physical sciences, where both the organic and mechanical entities are viewed from the systems terminology. The systems theory regards the society as a big system, composed of a number of interdependent parts (Ritzer 1992: 220).

According to Bertalanffy (1968) a system comprises a complex interaction of elements. This description implies that knowledge of parts or elements of a system is not sufficient to understand the whole. It is exactly the interaction between elements that forms each system unique. The sum can be said to be equal to the characteristics of the independent elements *as well as* the interaction between the elements (Marais 1979: 156).

The properties of the General Systems Theory underwent development and mutual reinforcement with adjacent disciplines such as cybernetics and mathematical information theory. The theory found application in many disciplines. The eclectic nature of General Systems Theory has led to a wide disparity in the constructs that attribute to the theory. Further, General Systems Theory enjoys little empirical verification outside those disciplines that share their origins with the theory. The term "theory" is thus misleading when applied to General Systems Theory, as it is widely accepted as a perspective or approach, and not as a theory (Lubbe & Puth 1994: 42).

It is necessary to investigate the relationship between the parts as well as the relationship of the system with other systems. It is also necessary to look at the inputs in the social system, the way in which these inputs are processed by the society and the outputs that are produced (Ritzer 1992: 220).

A system is a set of objects or entities that work with each other to form a whole. From the most simplistic viewpoint, it can be said that a system consists of four things, the first being objects. The objects are parts, elements or members of the

system. In the second place, the system consists of attributes, or the qualities or characteristics of the system and its objects. In the third place, there are internal relationships between its objects. This characteristic is a fundamental quality of systems. In the fourth place, a system always has an environment. Systems do not exist in a vacuum, but are influenced by the environment (Littlejohn 1983: 35).

The systems theory is a product of a variety of scientific ideas, amongst other the information theory, operational research and the economic systems theory that moved from other fields into the sociological arena. These ideas were then adapted to be applicable to social life.

2.3 THE CHARACTERISTICS OF THE SYSTEMS THEORY

Bearing in mind that the systems theory has its origin in the sciences and can be applied on all behavioural and social sciences, it provides, in the first place a common way to form a unit. Secondly, the systems theory is multi dimensional and can, therefore, be applied on a large as well as small scale.

In the third place, the systems theory is interested in the variety of relationships between the various aspects of the social world and operates against the analysis of the social world. The argument of the systems theory is that the intrinsic relationship of the parts can not be dealt with outside of the context of the whole (Ritzer 1992: 518).

In the fourth place, the systems theory regards all aspects of the socio-cultural system in process terms, to be precise, as networks of information and communication.

In the fifth place, and maybe most important, it is inherently integrative. It entails the integration of big structures, symbolic systems, action and interaction and

consciousness. The idea of the integration of the various levels was also accepted. In the final instance, the systems theory regards the social world in dynamic terms, with consciousness of socio-cultural existence and dynamics in general (Ritzer 1992: 519).

The systems theory focuses upon the principles of all systems' organisations, regardless of type. All systems are seen to possess six qualities: wholeness, hierarchy, self-regulation, openness, adaptability and stability and flexibility.

2.3.1 Wholeness

Systems have properties that are different from those of their individual parts because of the relationship and interdependence that exist between the parts. The mutual effects of the parts upon each other result in a whole system that is more than the sum of its parts (Lubbe & Puth 1994: 43).

2.3.2 Hierarchy

Each system is seen as a part of some hierarchy. Systems are all seen as subsystems of greater systems, and in turn as systems which comprise subsystems. Lower-level systems are comparatively simple and mechanistic, while increasing complexity is displayed by systems at the upper levels of the hierarchy (Lubbe & Puth 1994: 43).

2.3.3 Self-regulation

Each system is believed to display a measure of self-regulation. This self-regulation guides the operations of the system towards a goal state by "steering" towards it. The "goals" or final states of systems can be extremely limited, predictable and simple at lower hierarchical levels, and extremely complex at higher levels (Lubbe & Puth 1994: 44).

2.3.4 Openness

The systems theory distinguishes between open and closed systems. A closed system is separated from its environment. It is, therefore, subject to the second law of thermodynamics, thus entropic, tending towards maximum disorder. An open system has permeable boundaries that permit the exchange of information, material, or energy with its environment. It therefore has the potential to evolve into greater complexity (Lubbe & Puth 1994: 44)

2.3.5 Adaptability

The systems theory emphasises the dynamic nature of systems, concentrating upon emerging processes rather than static structures. Open systems change and adapt because of their interaction with their environments. These systems respond to environmental conditions, but they also engage actively with the environment (Lubbe & Puth 1994: 44).

2.3.6 Stability and Flexibility

Koestler (1978) believes that the most important properties of systems stem from their hierarchic nature, by being a whole and a part at once. He states that every system possesses two tendencies: an integrative tendency to function as part of the larger whole, and a self-assertive tendency to preserve its individual autonomy.

2.4 OPEN AND CLOSED SYSTEMS

The systems theory distinguishes between open and closed systems. A closed system is isolated and can only react on change within the system. There is no possible influence on the environment. In contrast, the open system is receptive

of inputs of the environment and as a result, conditions within the system are also influenced by influences from outside (Marais 1979: 156).

2.4.1 Open systems

2.4.1.1 Open systems: the organismic model

In open systems, units within an organisation affect and are affected by other units and the organisation as a whole is responsive to environmental change. According to Katz and Khan (1978: 32), organisations are open social systems with emphasis on two aspects (a) system character where movement in one part leads to movement in other parts in predictable fashion and (b) openness to environmental inputs, so that they are constantly in a state of flux.

Organisations are open systems that are formed by the relatively stable interaction patterns of their members. The interaction patterns are the products of communication, which is an essential component of organisational functioning and not an independent variable.

An open system is one that receives content and energy from its environment and also send content and energy to its environment. The open system is focussed on life and growth. Biological, psychological and social systems follow an open model (Littlejohn 1983: 35).

The key elements of open systems according to Katz and Khan (1978: 32) are:

- Input: without which a system runs down (entropy). These inputs can be the system's own output (for example money) or from the wider environment outside the system.
- Throughput (or transformation): the process of transforming inputs into outputs (for example making a product).

- Output: whatever the system eventually produces (for example the end product).
- Interrelationship or interdependence: "the interlocking relationship between the parts of a system and the whole system".
- Transactional relationship with the environment: the environment is not constant and must be under continual investigation.
- Boundaries: both connect and separate the organisation from it's environment (Gregory 1999 (a): 267).

An open system receives input from the environment that impacts on its ideal or desired goal states (or objectives). In response feedback from within the system causes adjustments in the system's structure (what it is) and its processes (what it does). Externally, outputs may maintain or change the environment. In organismic systems the objective is survival, but to achieve this they have to adjust to maintain balance within themselves and with their environments (Gregory 1999 (a): 268).

Homeostasis is the term that refers to relatively stable goal states that nevertheless can change as a result of system input. Organismic systems exert some impact on their environment by monitoring it to predict and influence change. This theory has its origins in biological advances and reflects aspects of Darwinian thinking (Gregory 1999 (a): 268).

2.4.1.2 Open systems: the adaptive model

This system drew heavily on the field of cybernetic research and lay particular emphasis on the role of adaptive feedback being actively sought in order to initiate purposeful change. The focus is on exploring how the system itself changes. An adaptive organisation is not static but "emerges from a network of interactions among individuals in which information is selectively perceived and

interpreted in accordance with the meaning it holds for the actors involved" (Gregory 1999: 268).

2.4.2 Mechanistic or closed systems

Early in the development of management theory mechanistic or closed systems concepts were used to understand effective management. These theories focused on how to manage a unit in an organisation itself without considering relationships with other units or with organisations' environment (Gregory 1999: 267).

These systems were concerned more with the internal workings of the organisation and paid little attention to external environmental matters. In a closed system there are no interaction. It moves to progressive internal chaos. The closed system-model is often applicable to a physical system.

Angelopulo (in Lubbe & Puth 1994) uses the terms "introverted" and "extroverted". Introversion is the perception of a system as one which is predisposed to operate as a static whole which remains unchanged through time, as a fixed structure, and with an emphasis upon the importance of internal phenomena in the relationship of the system with its environment. Extroversion is perception of a system as one that is predisposed to operate as an adaptable part of a larger system, with an emphasis upon the importance of the environment in the system-environment relationship.

According to Ritzer (1992: 519), the three types of systems also differ in the extent that they are open or closed, that is, the degree of interaction with aspects of the larger environment. An open system tends to be better to selectively react to a larger variety and detail of variety of the environment. Mechanical systems tend towards being closed, organic systems more open and socio-cultural systems the most open of the three.

Closed systems do not exchange energy, content or information with the environment. Open systems, on the other hand, move outside of its borders to the surrounding environment (Turner 1991: 120).

The comprehension of equal finality is of importance here. It refers to the fact that the condition of a system on a given moment is rather independent of the organisation of the elements at the start. Equal finality is more typical of an open system than a closed system (Marais 1979: 156).

2.5 COMMUNICATION AS A PROCESS

Most definitions of communication explicitly or implicitly state that communication is a *process*. Process implies movement, change and the interaction between parts of the whole. These meanings cannot be related to the fixed description of communication as transmitter, message, medium and receiver. Systems approach can be said to be an attempt to clear the idea of communication as a process (Marais 1979: 155).

Recent trends indicate a clear shift in preference in using the term corporate communication rather than the traditional public relations. The latter term suffers from negative associations with the way in which the function was practised in the past. Modern definitions of the function indicate that three key terms represent the essence of corporate communication as a management function. It applies to all kinds of organisations; it entails the management of communication between an organisation and its internal and external stakeholders; and being a management function, it is far more that a mere collection of communication techniques (Steyn & Puth 2000: 6).

In this research the term communication and public relations are used inter-changeably, although the preference is for the term communication.

The systems approach is one of the most fruitful approaches to public relations management. It offers a framework that places the public relations processes and tasks logically within the ambit of the organisation's operations. The approach illuminates the part which public relations plays in the effective operation of the organisation (Lubbe & Puth 1994).

In applying the systems approach to public relations, the public relations practitioner and management accept certain systemic properties of organisations and their operations.

The relatively stable interaction patterns of organisations, their overt manifestations and underlying determinants, are the products of communication, of the sharing of certain meanings. It is by communication that co-ordinate behaviour, control, the definition of tasks and goals, the measurement of their attainment, and informal operations are made possible. Communication is not an independent variable, but rather the essential component of organisational functioning (Lubbe & Puth 1994).

The organisation is a group of individuals who share meaning regarding specific objectives. The variance of their interpretation of certain organisation-related symbols is minimal; constraint exists in the intention; behaviour and goals associated with those symbols.

The nature of each organisation is determined by its culture, which comprises the values, beliefs, perceptions, and behavioural norms which exists within the organisation, and not by its formal rules, authority and rational structures. Manifest behaviour and the organisation's artifacts are distinguished from the assumptions which precedes them (Lubbe & Puth 1994).

2.6 THE SYSTEMS APPROACH AND ENVIRONMENTAL SCANNING

According to Gould (1977: 90) “Extinction is the fate of most species, usually because they fail to adapt rapidly enough to changing conditions of climate and competition.”

Gould’s (1977) essay on evolution repeatedly conveys the same message. Organisms that cannot change fast enough to cope with rapid environmental change or competition will become extinct.

Social organisations often behave in ways similar to biological organisms. As the changes occurring around us seemingly accelerate, it is imperative that we carefully monitor the major trends that may affect us and evaluate appropriate strategies of adaptation. If we do not heed the futurists and attempt to adapt, we are destined, like the dinosaur, to become extinct (Gould 1977: 91).

Organisations should know that they are heeding for a crises if the speed of change inside the organisation is slower than the speed of change outside the organisation.

It has been noted that the organisation which has the greatest potential for ongoing success in the exchange of values with the environment is one that interacts actively with its environment for the mutual benefit of both organization and environment. Such organisations can be described as actively outward orientated. Because this condition is a state of being, it is possible that it could exist without the active intervention of a facilitating agent. Without such an agent, however, it is possible that management and staff would pursue objectives closely aligned to their specific organisational functions, and ignore those related to a holistic organisational policy (Lubbe & Puth 1994).

The degree to which the organisation is actively outward orientated depends largely on the extent to which management and the public relations personnel perceive their organisation to be a whole comprising parts which are hierarchically ordered, which works towards certain ends, is relatively open to its environment, and is adaptable (Lubbe & Puth 1994).

A systems approach implies an understanding of the "glue" which holds organisational systems together – the communication process and the underlying culture that exists within the organisation. Because public relations from this perspective incorporates aspects such as assimilation and dissemination of information, change and involvement with extremely complex phenomena such as attributes and values, some understanding of these processes is called for. The public relations practitioner must know the ends towards which the organisation strives – especially those aimed at the attainment of environmentally sources values. This implies a close understanding of and interaction with management (Lubbe & Puth 1994).

According to Morrison & Renfro (1984: 49) given the accelerating pace of change, planners and the organisations they serve found that, increasingly, emerging issues in the outside world had a **greater** impact on the organisation's future than internal issues.

The four systems concepts of input, throughput, output and feedback are also relevant to understanding the relationship between systems theory and environmental scanning. The contribution of corporate communication mostly focused on the throughput and output phase. Input (research, including environmental scanning) on strategic level was missing in the past.

In relating these concepts to corporate communication, information (**input**) can be obtained by doing research (such as environmental scanning) in order to

identify problems or issues that can create consequences for the organisation. This information is mostly obtained from the external environment.

This is the role of the communication strategist and enables the communication department to make a contribution on organisational level (strategically) and not only on departmental level.

In the **throughput phase** the corporate communication strategist becomes more involved in strategic intelligence. This includes analysis and interpretation of information; the dissemination of strategic information to relevant players and thereby participating in the strategic management process. The information is then analysed and solutions to problems are formulated by setting corporate communication goals and deciding upon communication activities.

In the **output phase,** practitioners behave by doing something, e.g. write a press release.

In conceptualising a strategic role for the communication professional and department, it is suggested that the systems approach to corporate communication is broadened in order that corporate communication become more deeply involved in the organisation's information acquisition phase (input) through environmental scanning. Furthermore that throughput is extended to include analysis and interpretation of information, and dissemination of strategic intelligence to relevant players, thereby participating in the strategic management process.

The environment of an organisation is composed of all the forces external to the firm that directly or indirectly influence its operation and which, in turn, may be influenced by the organisation. Organisations as open systems collect and process information about the external environment on which to base organisational actions (Daft & Weick 1984: 284).

The correct use and application of environmental scanning can be used as an answer to organisations to deal with change and the impact thereof on the company. Environmental scanning is a process by which an organisation learns about events and trends in the internal and external environment. It helps establishes relationships between these trends and considers the main applications for problem identification and decision making.

2.7 CONCLUSION

In Chapter Two the theories used as framework for this study were discussed. The systems theory and the information gap theory provide the theoretical base for this research.

The systems theory states that organisations are effective when they survive in their environment and successfully bring in resources necessary for their survival. The systems theory, therefore, adds the environment to the equation of organisational effectiveness, but it is limited because survival is a weak goal. The systems theory also defines the environment in vague terms. It does not answer the question of how an organisation determines what elements of the environment are important for its success (Grunig & Huang 2000: 31).

It is clear that the fundamentals of environmental scanning link very closely with the idea of the systems theory. Future, financial and technological trend analysis forms part of environmental scanning. These future trends must be incorporated in the planning et cetera of the company or organisation.

In Chapter Three, the development and importance of communication research receives attention. The communication professional and research are also addressed. The importance and measurement of relationships in communication, reputation management and knowledge management are also discussed.

CHAPTER THREE
CONCEPTUALISATION OF COMMUNICATION RESEARCH

3.1 INTRODUCTION

The systems theory and the information gap theory provide the theoretical base for this study. These theories were discussed in Chapter Two.

In Chapter Three the development and importance of communication research receives attention. The communication professional and research will be addressed. This includes measurement, reputation management and knowledge management.

According to Du Plooy (1995: 1), we can describe science broadly as a human enterprise carried out within a community of practitioners. The purpose of science is to study and explain human reality in an authoritative fashion, and in such a way that it acquires value and use for mankind. In the scientific study of communication, we emphasise a specific part of this reality, namely the communication process with its constituent parts (communicators, messages, recipients and the circumstances in which the process takes place).

The structure and process of communication research can be broadly divided into **two categories**: the first deals with **abstract** issues like the origin of research traditions. The second category focuses on the **practical** dimensions of the research process, or how to conduct research (Du Plooy 1995: 2).

Members of a research tradition tend to have the same view of **reality**: about what constitutes valid **knowledge**; about the way the communication process should be **theoretically** explained; and about the best research **methods** (Du Plooy 1995: 2).

3.2 POSITIVIST RESEARCH

The positivist research tradition in communication (sometimes called empirical or quantitative research) originates in the approach to, or ideology of, science known as positivism. Positivism originated in the 17th century Europe. By the early 19th century this approach and ideology of science displayed three key components:

- A belief that valid knowledge could only be gained from **observable (empirical)** evidence. In this process the researcher had to be **objective.**
- A belief that researchers should strive towards methodological unity between the social sciences and natural sciences, by applying the methods of the natural sciences (like laboratory experiments) on the social sciences.
- A belief in the progress of human reason and the need to utilise the social sciences to establish a new social order (a better world). The latter was also referred to as the positivist ideal (Mouton 1996).

Positivist media research assumes an **empirical theory of knowledge**. Developed by a succession of British philosophers, empiricism views experience (observation) as the only source of real knowledge. To achieve the positivist ideal of methodological unity with the natural sciences, empirical communication research uses the **scientific method**. This method differs from other methods of obtaining knowledge because it is based on observation and the testing of assumptions **(hypotheses)** against the evidence of the "real world".

3.3 THE CRITICAL RESEARCH TRADITION

While the positivist research tradition in communication developed in the United States the critical research tradition started in Germany. By the turn of the century, Germany – like the United States – was in a state of flux and upheaval. Social critique and ideological power in particular typified the philosophical and political thinking of the day. This was because of change and transformation in

the country brought about, mainly by industrialisation. These changes led to political and economical inequality. To chart the development of this modern but dislocated society, intellectuals relied mostly on Karl Marx's theory of historical materialism (Du Plooy 1995: 13).

As in the United States, people in Germany were unhappy with the destruction of the old agrarian community and its replacement by the new mass society. Thus when the Frankfurt School of Social Research started in 1923, it represented an effort to incorporate the critique against mass society into a Marxist framework. The academics at the School formed their own variant of Western Marxism, which we call critical theory (Du Plooy 1995: 13).

The School's idea of reality was informed by Marx. Marx himself was influenced by the ideas of the German philosopher, Georg Hegel (1770-1831). Hegel contended that social reality had a dialectical nature.

3.4 COMMUNICATION PRACTITIONERS AND RESEARCH

There has been a substantial amount of research by academics into the way in which practitioners use research. Broom & Dozier (1990) drew a distinction between two extremes of public relations practice at either end of a continuum. At one extreme the practice is "intuitive", and personal, with little use for social and behavioural research. At the other end scientific research is conducted and the practice is "objective and rigorous," based on application of empirical knowledge and theory (Puchan, Pieczka & L'Etang 1999: 168).

In this chapter, the positioning and the current status of communication research and environmental scanning will be investigated. Both communication research and environmental scanning, a research method, experienced notable growth during the past years.

During the last two decades, rapid changes in the environment seriously threatened many organisations, resulting in radical re-engineering, restructuring or transformation for many. Management increasingly realises that it is imperative to understand the organisation's environment and change along with it, in order to survive and prosper. They have come to understand the importance of monitoring changes that are taking place, since an organisation can only respond to those parts of the environment of which it is aware.

There is thus increasing pressure to make greater investments in personnel and systems for gathering environmental information, to reduce some of the uncertainty and risk encountered in strategic decision making. Technological innovations are making it easier to acquire environmental information. However, effective systems should be developed to acquire *relevant* environmental information in a timely fashion.

In the current academic literature, there is a strong bias in favour of scientific positivist research. Dozier (1990) contrasts various types of public relations practitioners in his research into roles in which he identifies "the creative artistic practitioner (who wants) more say in decisions but not at the expense of their spontaneity and emotional involvement in the public relations process". The implication of Dozier's research is that "creative artistic practitioners" who do not use or understand scientific research are likely to be limited to a technician role (Puchan, Pieczka & L'Etang 1999: 168).

3.5 THE MEASUREMENT OF RELATIONSHIPS IN CORPORATE COMMUNICATION

3.5.1 Why is it important to measure relationships in public relations (corporate communication)?

A growing number of corporate communication practitioners and scholars have come to believe that the fundamental goal of corporate communication is to build and then enhance on-going or long-term relationships with an organisation's key constituencies.

Techniques for measuring and evaluating the relatively **short-term** *outputs* and *outcomes* of specific programmes, events and campaigns have existed for quite a number of years. But up until now, measuring the success or failure of **long-term** *relationships* stemming, in part from public relations efforts, have not existed (Grunig & Hon 1999: 4).

Outputs are usually the immediate results of a particular public relations programme or activity. They measure how well an organisation presents itself to others and the amount of attention or exposure that the organisation receives. *Outcomes* measure whether target audience groups actually *received* the messages directed at them …paid *attention* to them …*understood* the messages …and *retained* those messages in any shape or form (Grunig & Huang 2000: 23).

They also measure whether the communication materials and messages that were disseminated have resulted in any *opinion, attitude,* and/or *behaviour* changes on the part of those targeted publics to whom the messages were directed (Grunig & Hon 1999: 4).

As important as it can be for an organisation to measure public relations *outputs* and *outcomes,* it is even more important for an organisation to measure *relationships*. This is because for most organisations measuring *outputs* and *outcomes* can only give information about the effectiveness of a *particular or specific public relations programme or event that has been undertaken* (Grunig & Hon 1999: 4).

3.5.2 Why are successful relationships important to public relations?

For at least 25 years, public relations scholars have asked two fundamental questions? "How do you measure the effects of public relations?" and "How do you show the value of public relations to an organisation and to society?" Communication researchers have known how to measure several effects of public relations for many years. Nevertheless, they know how to evaluate the effects of public relations techniques and programmes better than they know how to measure the value of public relations to an organisation and to society (Grunig & Hon 1999: 8).

Measures of the effects of public relations techniques and programmes indicate whether they have achieved their communication objectives, but they fall short of being able to measure the value of public relations to an organisation or society. It is possible, for example, that a public relations programme could be based on poor strategic thinking and change the cognitions, attitudes and behaviour of a public that has little impact on the organisation (Grunig & Hon 1999: 8).

3.5.3 The value of public relations is in relationships

In the research project on excellence in public relations and communication management conducted for the International Association of Business Communicators' Research Foundation, researchers searched the literature on organisational effectiveness for ideas that could explain the value of public relations.

They believed it was necessary to understand what it means for an organisation to be effective before they could explain how public relations makes it more effective. The search of the literature on organisational effectiveness revealed that effective organisations achieve their goals. Effective organisations choose and achieve appropriate goals because they develop relationships with their

constituencies, which public relations practitioners typically call publics. Ineffective organisations cannot achieve their goals, at least in part, because their publics do not support and typically oppose management efforts to achieve what publics consider illegitimate goals (Grunig & Hon 1999: 8).

Public opposition to management goals and decisions frequently results in "issues" and "crises". As a result, the process of developing and maintaining relationships with strategic publics is a crucial component of strategic management, issues management, and crises management.

The process of incorporating the goals, interests and concerns of publics into the strategic decision processes of organisations is never easy, because organisations generally encounter multiple publics with multiple goals.

Public relations makes an organisation more effective, when it identifies the most strategic publics as part of strategic management processes and conducts communication programmes to develop and maintain effective long-term relationships between management and those publics.

As a result, we should be able to determine the value of public relations by measuring the quality of relationships with strategic publics.

3.5.4 What contribution does achieving short-term communication objectives make to the building of long-term relationships?

Grunig & Hon (1999: 8) says strategic public relations consists of the identification of the most strategic publics with which an organisation needs to develop a relationship; planning, implementing and evaluating communication programmes to build relationships with these publics and measuring and evaluating the long-term relationships between the organisation and these strategic publics.

They also say that knowledge of how to evaluate public relations largely is limited to the second stage: we know how to determine the effects of specific communication programmes on the cognitions, attitudes and behaviours of publics in the short term. There is a link, however, between short- and long term outcomes of public relations.

The International Association of Business Communicators Excellence study provided evidence that there is a correlation between achieving short-term communication effects and maintaining quality long-term relationships. The research team classified public relations departments as excellent when the chief executive officer's of their client organisations assigned a high value to the contribution of the department. The chief executive officer said they valued these departments because of their ability to maintain relationships with key stakeholders. The senior communicators in the excellent departments also reported more often than those in less-excellent departments that their programmes had "change-of relationship" effects such as changes in behaviour of a public, greater cooperation between the organisation and the development of a stable, long-term relationship.

3.6 LERBINGER'S CLASSIFICATION OF CORPORATE COMMUNICATION

In relating research to the development of a corporate communication strategy (and plans), a very useful definition of the kinds of corporate communication research is provided by Lerbinger (1977: 11).

3.6.1 Environmental monitoring

Environmental monitoring or scanning is research to detect trends in stakeholders' opinions and in the social-political, economic, technological, ecological and legal environment. It is used to keep track of "what is going on out there". Environmental monitoring is the mainstay of corporate

communication and is often referred to as “assessing the corporate climate” (Lerbinger 1977: 12).

3.6.2 Social auditing

Social auditing is research similar to environmental monitoring. Social audits determine the effects the organisation has had on its stakeholders and the extent to which those effects must be corrected. The primary purpose is to examine, catalogue, systemise and measure the organisation’s performance as a corporate citizen (Lerbinger 1977: 12).

3.6.3 Corporate communication auditing

Public relations auditing is research to define stakeholders, and to determine how they perceive and evaluate the organisation. There are two basic types of audits: audience identification and corporate image studies.

Audience identification:

- Identifies relevant stakeholders
- Evaluates the organisation’s standing with each relevant stakeholder
- Identifies issues of concern to those stakeholders
- Measures the power of each stakeholder.

Corporate image studies are an extension of the corporate communication audit insofar as they determine:

- The familiarity of each stakeholder with the organisation
- The attitudes of each stakeholder toward the organisation
- The personality characteristics each stakeholder associates with the organisation (Lerbinger 1977: 14).

3.6.4 Communication content auditing

This is research to evaluate corporate communication programmes or plans to find out whether messages have actually reached the target audience. It includes readership surveys, content analysis of messages, and the measurement of the readability of messages (Lerbinger 1977: 15).

Research is generally divided into being quantitative and qualitative. Quantitative projects are aimed at quantifying the number of people who have a specific attitude or problem with the company. Qualitative research is where one is trying to get a deeper understanding of the issues.

3.7. QUALITATIVE AND QUANTITATIVE RESEARCH

Qualitative research is broader than quantitative research and based more on observation. Quantitative research provides statistical information. Used together, both types of research complement each other (White 1998:15).

3.7.1 Qualitative research

Qualitative research aims at the development of theories *(grounded theory)* and understanding. The objective of qualitative research is to promote better self-understanding and increase insight into the human condition. Unlike quantitative researchers, qualitative researchers do not regard themselves as collectors of "facts" about human behaviour that will lead to verification and the extension of theories and enable researchers to determine causes of and predict human behaviour. In qualitative research the emphasis is on improved understanding of human behaviour and experience (Garbers 1996: 283).

These researchers try to understand the ways in which different individuals make sense of their lives and to describe those meanings. Empirical observation is

prominent, because researchers need to study actual cases of human behaviour if they are to be in a position to reflect on the human condition with more meaning and clarity (Garbers 1996: 283).

Qualitative research is mostly done in groups – for instance a number of people (about 8) is brought to a venue and asked to discuss the issues being researched. These venues are mostly equipped with a one-way mirror and sound equipment for recording for the client to review the process. A professional person will guide the group to ensure that they remain focussed on the subject, that some people do not dominate, that they move through the issues in an orderly fashion, and that interesting points raised by the participants are pursued (Du Plessis 1994: 3).

Qualitative methodology includes direct observation, an overview of different documents and artefacts, participant observation and open-ended, unstructured interviewing. Researchers are led by an evolving and flexible design (Garbers 1996: 283).

"Qualitative" is an umbrella term for research based on *different theoretical orientations*. Prospective qualitative researchers should familiarise themselves with, *inter alia*,

- The *phenomenological approach* whereby researchers strive to understand the meaning of events and interactions to ordinary people in specific situations;
- *Symbolic interaction*, which is based on the assumption that objects, people, situations and events do not have inherent meaning – meaning is attributed to them and this process involves interpretation;
- *Ethnomethodology,* which refers to the study of how individuals create and understand their daily lives; and

- *Cultural studies*, which are embedded in conceptual frameworks like neo-Marxism, feminist materialism and feminist post-structuralism (Garbers 1996: 284).

The most important person in this process is the moderator. This person has to know how to get the group to participate; who has to keep them going; who has to get the shy respondents involved; who has to ensure that people remain interested in the proceedings; who has to make sure that time is spent on interesting topics when these come up spontaneously; who has to ensure that the group moves onto new issues when an issue has been exploited; etc (Du Plessis 1994: 3).

Generally the moderator does not start to put the case for the company - i.e. when people have views the company would feel to be "wrong" the moderator does not get into explaining why their views are wrong - which is often failing when the moderator is attached to the company or its public relations practitioner.

The strength of group discussions is using the inter group dynamics that occur in any social occasion. People express views, raise new issues, argue differences et cetera. But this is also the weakness of a group. In such a setting people's views are influenced by the views of others, and the way in which other people express views (Du Plessis 1994: 3).

The presentation of the dichotomous “formal” (quantitative) and “informal” (qualitative) framework does not make the point that good or bad research may be either quantitative or qualitative. The emphasis tends to be on quantifiable outcomes (Puchan, Pieczka & L’Etang 1999: 168).

What are the characteristics of qualitative research?

- *Words.* Qualitative research focuses on words rather than numbers.
- *Researcher involvement*. The main research "instrument" in qualitative research is the researcher who closely engages with the people being studied.
- *Participant viewpoints.* A desire to explore and present the various subjective perspectives of participants is associated with qualitative research.
- *Small-scale studies*. Qualitative researchers are interested in deep exploration in order to provide rich, detailed, holistic description – as well as explanation.
- *Holistic focus.* Rather than directing their attention to one or two isolated variables, qualitative researchers tend to be oriented to a wide range of interconnected activities, experiences, beliefs etc.
- *Flexibility:* Although researchers have a topic and an agenda which fuel their research progress, they are usually committed to exploring new and often surprising avenues that emerge as informants reveal their understandings and interests.
- *Processual.* Qualitative research rarely provides static portraits of phenomena. Instead it aims to capture processes that take place over time.
- *Natural settings.* On the whole, qualitative investigations are carried out in people's natural environments such as in their offices or where they shop.
- *Inductive then deductive*. Qualitative research tends to start out with inductive reasoning and then, through a sequential process, employs deductive reasoning (Daymon & Holloway 2002: 7).

3.7.2 Quantitative (empirical) research

Quantitative researchers seek explanations and predictions that will generalise to other persons and places. The intent is to establish, confirm, or validate relationships and to develop generalisations that contribute to theory.

Some research data are in numbers. In fact, quantitative research methods are inquiries in which observations are expressed predominantly in numerical terms. Quantitative research has two major branches, surveys (of all varieties) and experiments (Reinard 2001: 8).

Quantitative research represents the mainstream approach to research and carefully structured guidelines exist for conducting it. Concepts, variables and hypotheses tend to be defined before the study begins and remain fixed throughout.

Researchers must remain detached from their "subjects" in order to make unbiased, universal, context-free generalisations.

Quantitative researchers typically reduce their data to numbers, which they then present as the results of statistical tests.

The advantage of quantitative research is that people are interviewed individually, and they all answer the same questionnaire. Thus when they are asked a question, they give their own opinion - unbiased by answers they have just heard someone else give. From a quantitative study the client can read that a certain percentage of a specific stakeholder-group has a specific view about him (Du Plessis 1994: 4).

3.8 INFORMAL REVIEWS

Broadly, such practical assignments will fall into the subjective or objective categories. Certainly if the goals for the public relations performance were originally set only as aims, then there is not much point in taking the assessment behind the subjective stage. Though, even this can be valuable.

One well-established subjective measure is to hold a performance review towards the end of a programme or activity and before the detailed planning of the next stage. This needs to involve all the people who contributed to the original discussions and helped in preparing the aims. The meeting will look at each of the aims originally defined and will discuss whether there is any evidence to support any improvement related to the targets.

According to Brody & Stone (1989:6) informal research are all those processes that do not employ statistical methods, thus implying that the results are not necessarily reliable. The trend, however, is to acknowledge many research techniques which do not use statistics, as equally reliable. Informal research can therefore be regarded as research that has not been verified through accepted research techniques.

3.9 PUBLIC RELATIONS EVALUATION

Both formal and informal research methods have a place in the practice of public relations and although instinct and gut feelings remain important in the conduct of public relations work, management also demands measurement, analysis and evaluation at every stage of the public relations process (Walker 1997: 98).

The term measurement is often confused with evaluation. Measurement is the process of assigning numerical values to some or all attributes of the study object. Another primary concern with measurement is whether the measure is "valid" and "reliable". *Validity* means that the measurement instrument actually measures what it is supposed to measure. *Reliability* refers to the consistency of the measure.

The increasing move to quality management with its expectations of measurable outcomes has intensified the demands for the public relations practitioners to evaluate their work. Economic constraints and increasing competition for scarce resources favour those who can demonstrate their effectiveness with

facts and figures. At the same time, attempts to professionalise the public relations industry have emphasised professional characteristics as particular expertise, a shared body of knowledge and continuous learning (Walker 1997: 98).

Setting measurable objectives is essential in order to know the value of public relations but it is difficult to decide how much should be spent to determine this value. Given that the "pressure to measure" seems to outweigh current practice in public relations evaluation, and the fact that public relations is increasingly compared with other marketing disciplines, it can be argued that between 3 and 12 per cent of the public relations budget should be assigned to public relations measurement generally (Macleod 1998: 384).

According to Cole (1997: 49) the lack of communication measurement is one of the reasons why organisations cannot "fix" their communication problems. Many people automatically turn their minds to the "off position" upon hearing words such as "measurement, numbers, or statistics". Cole suggests that there are two choices for quantifying successful communication. The first is observing the actual outcome, and the second is to implement a regularly scheduled procedure to measure communication.

Many people trained in the communication arts have an aversion to measurement, while people trained in the science of engineering and finance tend to have an affinity for it. Between this aversion and affinity lies a fair amount of tension. Managers frequently insist that they measure everything, that "what gets measured is what gets done" (Lee 1999:13).

With a sophisticated understanding, an organisation can become adept at measuring communication in a wise and constructive way.

In recent years, more and more public relations professionals and chief executive officers have come to realise not only that reputations matter, but also that they

can be managed. Indeed, many public relations firms have gone so far as to substitute the words “public relations” for “reputation management” to describe their work (Klein 1999: 32).

But whether you call it “public relations” or “relationship management,” the struggle has been the same - how to prove the effects of your work. Now, however, public relations professionals have access to a new generation of research tools that can help measure the reputation they’re purporting to manage and prove whether their work actually improved it (Klein 1999: 32).

What’s motivating this rush to reputation management and measurement is a plethora of evidence that a good reputation can dramatically affect an organisation’s results. A 1997 Ernst & Young study, “Measures That Matter,” found that as much as 40 percent of the average company’s market value is based on non-financial assets, including its reputation. But before you can manage a company’s reputation, you have to measure it (Klein 1999: 32).

According to Lee (1999:13) the first touchstone of good measurement is to understand *why* you want to measure at all. It is not really constructive to attempt to quantify the value of strategic communication. As economists remind us, the value of anything is whatever someone is willing to pay for it. To the extent that management doesn’t know how much to spend on communication, the real problem may be a poor understanding of communication as a leadership and management process.

The second touchstone of good measurement is to agree on *what* to measure. In general, one should resist the temptation to measure the inputs and outputs of the work of communication. Instead, one should measure the consequences of communication. Examples of inputs are the resources (such as time, money and personnel) that go into communication. Examples of outputs are the frequency and circulation of a publication (Lee 1999:14).

The alternative is to concentrate on how well the communication function is building awareness, understanding and acceptance of the competitive environment and strategic direction as a foundation to commitment. To do that, measurement should focus on *outcomes*, the impact of communication within the organisation on whatever strategic metric is of importance. The third touchstone of good measurement is to understand *how* to measure (Lee 1999:14).

3.10 WHY PRACTITIONERS DO NOT EVALUATE

It is widely and well known that practitioners have not evaluated their work in the past. In this section, the researcher will investigate why this is the situation. A survey of IPR members' attitudes to evaluation, done by Watson (1993) discovered that while three-quarters of practitioners claimed to undertake some form of evaluation, three-quarters of respondents also agreed that little money was spent on evaluation – from zero to five per cent of the total budget.

When questioned about their motives for undertaking evaluation, "prove value of campaign" came out a very clear leader, followed by "help campaign targeting and planning" and "need to judge campaign effects". Another reason, "help get more resources" came a distant fourth (Watson 1993:139).

Watson's research showed that practitioners were defensive about their activities. They used evaluation techniques to present data on which they could be judged rather than using evaluation to improve programmes. Output measurement was seen to be more relevant than gauging impact or gaining intelligence so that programmes could be improved (Watson 1993:139).

It is common that communication professionals feel that they need to prove the value and efficiency of their department, but don't know where to begin. Because the work of the communication professional is largely devoted to formal communication - newsletters, brochures, videos, speeches and so forth – they

are looking for yardsticks on such things as the readership and readability of publications (Lee 1999:16).

According to Baron (1997: 32) there are three main reasons why communicators don't measure:

1. Nobody asks them to or gives them time and/or budgets to do so.
2. The influences of communication programmes are almost never isolated, so it's difficult to posit relationships between performance and communication programmes only.
3. Most communication professionals are not comfortable with research methodology.

Two of the main reasons why communicators do not measure are insecurity and not understanding the need to measure. They are afraid that the results will be bad news.

Elizabeth Howell, ABC, concurs by saying, "When I don't measure, it's usually because I don't know how; I have no budget to outsource the measurement activity, or management doesn't really want to know" (Baron 1997: 33).

Many communication managers shrink from measurement because of anxious uncertainty over what to measure and how to measure it. That, along with intimidation by colleagues in other disciplines who insist to measure everything (Lee 1999:17).

One of the major difficulties in evaluating the effectiveness of public relations activity is the sheer range of the activity. Public relations can, for example, support business objectives, explain policies, increase awareness, focus attention on issues, encourage informed discussion, help to change perception, influence attitudes, motivate staff, reinforce the marketing and sales effort, build

and sustain a reputation over time, help restore credibility, have some effect on the values of a particular group (Dyer 1998: 13).

It is indeed a broad range of activities. To accomplish assessment of these activities, current public relations evaluation strategies are very dependent on surveys of public opinion. According to Dyer (1998: 14), there are furthermore no models of public relations productivity and performance that specify categorical statements of what is good or bad public relations outcome.

The specific challenge we face is how to go about communication measurement in a meaningful way. Communication cannot be measured meaningfully if the quantifying metrics is the disputed value of communication. To have meaning, communication measurement must assume the value of communication and focus on effectiveness with respect to the organisation's strategic direction. That makes measurement of communication worthwhile (Lee 1999:17).

Lee (1999: 17) pinpointed the main reasons why programmes were not formally evaluated. These were, first, lack of knowledge, second was "cost", followed by "lack of time" and "lack of budget".

There are also other reasons why evaluation is seen to be problematic.

- **Understanding what it is that has to evaluated** Often what is measured is output and not outcome. So we will be very happy to see a nice, fat clippings file and will spend money to pay a clipping agency to collate the file for us. However, in the long run it doesn't matter how heavy the clippings file is, what matters is what those clippings achieved (the outcome) (Watson 1993: 141).

- **Setting objectives**. Objectives need framing in measurable terms. "Raising awareness" is not a good objective unless you quantify by how much: 1 per cent or 99 per cent? Research will show you what is possible. Some

objectives will be fairly simple to quantify. The achievement of objectives is the clearest way to evaluate any programme or campaign.

- **Understanding of what can be achieved**. Public relations practitioners should make realistic promises. What is required is an honest, sober appraisal of what can be achieved. The over-promising problem is exacerbated by a genuine lack of knowledge of the psychological art of the possible (Watson 1993: 142).

- **Range of evaluation techniques required.** Public relations are unlike some other forms of marketing communications, such as direct mail, where the evaluation is relatively simple. You count the number of returns and the business transacted. Public relations addresses many audiences in many different ways and different types of evaluation techniques are needed (Watson 1993: 142).

- **The communication chain**. The decisions that have to be taken all along the communication chain affect the communication outcome. You have to decide on the message, the medium, the form of words and/or images, and ensure the target is receiving and interpreting the communication correctly. "Evaluation" has to take place all along the chain. If one element is wrong, the desired outcome will not be achieved. Thus evaluation just at the end of the programme can be misleading.

Past and current research on the measurement and evaluation of communication focussed on the evaluation of the communication process. The focus should instead be on the distinction of the goals of the company, the alignment of the communication processes with the goals and the measurement of the output. In other words, the measurement of the effectiveness of the technique and process is not sufficient.

The trick is to focus on impact, not activity. It is pointless to survey employees on their readership of a newsletter lacking much strategic information and future perspective. Rather, measure their awareness, understanding, acceptance, and commitment to the organisation's strategic success. It is one thing to ask employees, in a survey, whether they know the strategy. It is quite another thing to ask them to state the strategy (Lee 1999:19).

Other practitioners set only process or output objectives, which refer to the effort extended by the practitioner, such as "to send out 10 press releases per month" or "to invite 100 people to a cocktail party". However, if none of the press releases is published or if no organisational message is given to guests at the party, the public relations activity had no impact (Steyn 1999:10).

Before launching a programme, it should be pre-tested (i.e. through focus groups) to see if it communicates the intended message. It should also be tested along the way (in-process evaluation) to see whether the programme is making a difference, and to fine-tune it (Steyn 1999:10).

Many public relations practitioners serve as mere practitioners and do not use scientific research. As a result, public relations practice tends to focus on the means or strategies, paying little attention to the specifics to be achieved. Few programmes have measurable objectives specifying measurable outcomes, and even fewer use systematic research to determine the nature of problem

situations, progress toward achieving objectives, or programme success or failure (Broom & Dozier 1990).

The outcomes of the programme are monitored by means of summative evaluation research, to see whether the problem has indeed been solved, whether another problem has inadvertently been caused or whether a new problem has arisen itself (Steyn 1999:11).

Internal evaluation can be done among employees (informal research such as talking to people involved in executing the programme) to identify hiccups experienced during implementation, which can be avoided in the future. External evaluation (formal research such as surveys or focus groups or perception studies) can be done to assess the climate among external publics, to see if attitudes and perceptions have indeed changed (Steyn 1999:11).

The described model should form the basis of any corporate communication actions. Without a research orientation and the skills necessary to make corporate communication truly part of an organisation's adaptive subsystem, the function cannot become part of the organisation's strategic decision-making process (Steyn 1999:11).

Measuring the effectiveness of communication with respect to strategic direction requires first appreciating the rightful role of communication in business. It is just this: to create and cultivate employee awareness, understanding, and acceptance of the organisation's competitive environment and strategic intent as a foundation to a broad, real commitment to executive strategy, welcoming change and achieving goals (Lee 1999:19).

Viewed this way, communication is an essential leadership tool. No longer is it merely the "morale shop" or a harmless publisher of newsletters with free

classified ads and grainy snapshots of company picnics. Now its mission and the company's mission are one and the same (Lee 1999:19).

The organisation's top leaders may or may not have a sophisticated understanding of communication. But chances are they will listen to and embrace an explanation of communication in a strategic context. Commitment of the personnel is needed and that can only be obtained through communication. Commitment, moreover, requires the acceptance of strategic intent. Acceptance of strategic intent requires understanding of it, and understanding requires awareness of it. This four-stage progression - from awareness to understanding to acceptance to commitment – is what strategic communication is really all about (Lee 1999:20).

According to Grunig (1992: 186), there are two kinds of corporate communication research – evaluation research and environmental scanning. For corporate communication to contribute to organisational effectiveness (make a contribution to the bottom line), the most senior manager or practitioner heading the public relations function has to take responsibility for providing strategic information to top management. This information should be focused on the organisation's stakeholders and their concerns, as well as on identifying and managing the response to issues emerging in the internal and external environment, and anticipating their consequences for the organisation's policies or stakeholders.

Evaluation research will be discussed now and environmental scanning will be discussed in length in the next chapter.

3.11 EVALUATION RESEARCH

Evaluation research or programme evaluation is conducted primarily to determine the effectiveness of public relations plans or programmes. Such

studies are among the most sophisticated research activities that practitioners can undertake.

Evaluation research adds objective feedback on programme impact to the subjective assessments and informal research now used to judge programme effectiveness. Evaluation research uses scientific procedures to collect, analyse and interpret information to *help* determine the worth of something.

Evaluative research uses techniques that allow for comparisons between situations and measure changes.

Surveys or focus groups in themselves are key communication vehicles sending strong messages across the organisation. Valid techniques can be effective when implemented at the outset and incorporated into the design of the initiatives. The fact that most people today still rely mostly on focus groups to measure is our own limitation. There is an art to research techniques and, there are people who have been trained in effective measurement methods (Baron 1997: 33).

With the establishment of evaluation as an academic discipline, researchers began to investigate the evaluation process itself: were evaluations too costly and too late? Did evaluators use the right tools, methods and measures to find the right answers?

Geddie (1996: 24) further came to the conclusion that surveys are a waste of time and money until you use the results. "Communicators who let surveys and other evaluations gather dust on a shelf – rather than using results to plan – are doomed to begin every project at the bottom of the hill". Strategic implementation can begin as simply as setting baselines for improvement.

In the late 1970s and early 1980s a significant debate in the field was the quantitative-qualitative debate which was strongly related to the discussion of knowledge construction in evaluation (Puchan, Pieczka & L'Etang 1999: 167).

According to Steyn (2000:10) evaluation research can be subdivided into:

3.11.1 Formative evaluation

Formative evaluation helps practitioners to plan public relations programmes and design communication strategies to deal with opportunities and threats found in the environment.

It takes place before a public relations programme or plan begins or during implementation. It helps practitioners to better formulate plans and design implementation strategies (Steyn 2000: 10).

According to White (1998:15), formative research establishes benchmarks and clarifies situations and objectives. Precise and measurable objectives at the outset of a programme are a prerequisite for later evaluation. Diagnostic research can be used to evaluate and, if necessary, adjust programme activities.

3.11.2 Summative evaluation

Summative evaluation, which measures public relations programmes, is used both to monitor their implementation and to evaluate programme performance against stated objectives (Steyn 1998: 22).

It is used to measure the overall impact of public relations programmes – both to monitor its implementation and to evaluate programmes to ascertain whether goals and objectives were met (Steyn 2000:22).

Communication auditing is a well-known evaluation technique to most practitioners. It is research to evaluate public relations programmes and plans to find out whether messages have actually gotten through to the receivers. It assesses communication activities, widely used to study the readability and readership of corporate newsletters, and other routine communication, such as annual reports and press releases (Steyn 2000: 10).

In the implementation phase public relations plans and programmes are developed to implement the corporate communication strategy. Once again research plays an important role in evaluating ongoing programmes, pre-testing the effectiveness of certain tools, profiling a specific stakeholder and its attitudes, accumulating information about effective uses of media and evaluating completed programmes and campaigns (Steyn 2000: 10).

Apart from quantitative objective measures, subjective measures of performance are also quite legitimate. These factors may be especially important in the client and consultancy relationship, but are also highly prized in the relationships that in-house departments build with other departments within the organisation. Examples of these subjective yardsticks are enthusiasm; efficiency and professionalism; creativity and initiative (Gregory 1996: 145).

Communication professionals have an unproductive instinct to hold a yardstick up to inputs and outputs, or a combination of the two, and compare them with the yardsticks of their companies. It's easy to measure inputs, which are just the resources (such as money and personnel) that go into the communication. It's equally easy to measure outputs, such as quantity and quality of media. The alternative is to concentrate on how well the communication function is building awareness, understanding, and acceptance of the competitive environment and strategic intent as a foundation to the needed employee commitment. To do that, measurement should focus on outcomes, the impact of communication within the organisation on whatever strategic metric is of importance (Lee 1999:19).

Many communication personnel still think of communication as only newsletters and brochures and regard formal communication as the only communication. Perspectives should be broadened to include semiformal and informal communication. For together, semiformal and informal communication account for the preponderance of communication in any organisation. It is also the most important (Lee 1999:19).

Semiformal communication includes those programmes and initiatives, procedures, systems, and processes that carry the organisation's official endorsement. They function as communication because they do what communication does or should do: convey information, messages, and meaning to people and induce or impede certain kinds of thinking or behaviour in response.

Informal communication consists of relationships between leaders and the led, driven by routine conversation-comments, questions, complaints, humor – as well as by all those myriad behaviours and decisions, attitudes, and choices on the part of leadership that so often speak louder than words (Lee 1999:20).

Communication professionals often shy away from thinking in terms of semiformal and informal communication because they assume it is beyond their power to influence or measure. Their pessimism is unwarranted. Lee (1999:21) suggests that the four-stage progression - from awareness to understanding to acceptance to commitment - provide a much-needed structure for measuring impact. There is a distinct relationship between the three rubrics of communication and the four stages.

Formal communication works best at building awareness and understanding. Semiformal communication, to the extent it is consistent with its formal brethren, builds understanding and acceptance. Informal communication - again, to the extent it reflects the themes and messages of formal communication stand alone

in building commitment. With this relationship in mind, one can measure levels of awareness, understanding, acceptance and commitment as an indication of the impact of formal, semiformal and informal communication (Lee 1999:21).

In practical terms how does this translate into reality? There are a number of critical factors to consider when planning a campaign or programme:

- Set measurable objectives;
- Build in evaluation and quality checks from the start;
- Agree on measurement criteria with whoever will be judging the success of the work;
- Establish monitoring procedures that are open and transparant; and
- Demonstrate results (Gregory 1996: 143).

In recent decades, the emergence of trends such as the demand for accountability, the need to prove goal attainment and the development of modern management practices have forced not only private business but also the public sector to acknowledge the necessity of evaluation. Evaluation provides its user with two major advantages: feedback and the documentation of effectiveness (Puchan, Pieczka & L'Etang 1999: 164).

The origin of programme evaluation is difficult to pin down. Planned social research, as we would call it today, was recorded in 2000 BC in China where sophisticated personnel selection measures were established. The last 200 years have seen an enormous increase in attempts to carry out evaluation, but it was not until the 1960s that modern programme evaluation emerged as a discipline. The 1960s was also the decade when established professional societies, especially in social sciences, became interested in evaluation at their annual meetings and conferences, and informal groupings of researchers amalgamated into professional organisations such as the Evaluation Network

and the Council for Applied Social Sciences (Puchan, Pieczka & L'Etang 1999: 166).

In the 1970s, the Professional Evaluation Research Society became established and professional journals were released such as the *Evaluation Quarterly* in 1977, later re-titled *Evaluation Review and Evaluation and Program Planning*. All these developments were very much United States-centered (Puchan, Pieczka & L'Etang 1999: 166).

Evaluation practices in the United Kingdom began in the 19th century, with the Royal Commission on the Poor Laws in the 1830s, and other social surveys. Evaluation developed most strongly after the Second World War when the field of evaluation was most strongly connected with educational evaluation (Puchan, Pieczka & L'Etang 1999: 166).

In the United Kingdom "evaluation" means mainly media evaluation or content analysis, which may in some instances be quantified in terms of a measure of advertising equivalence. In 1996, the trade magazine *PR Week* commented that the emphasis is on the growing professionalism of the practice. It is expressed through increased evaluation practice and it is worth noting that the evaluation also becomes an issue in the relationship between the occupations of public relations and marketing (Puchan, Pieczka & L'Etang 1999: 168).

A useful device is the macro-model of evaluation demonstrated by Jim Macnamara (Macnamara 1992). The model forms a pyramid. At the base are the inputs, basically information and planning, and at the peak, objectives achieved. Each activity is split down into the various steps of the communication process.

It recognises inputs and asks the user to make a judgement on the quality of information, the choice of the medium and the content of the communication. It

then considers outputs, the communication produced, for example the newsletter or press release and then it considers the results or outcomes – what the communication actually achieved (Macnamara 1992).

The mode needs to be customised for each project, but the basics remain the same. Its strength is that it recognises a range of evaluation methods. The more advanced evaluation methods further up the pyramid are recommended. They measure actual outcomes, are more sophisticated and more expensive. The ones lower down the pyramid are more basic and can be seen as tests that you are doing things right, more akin to quality control (Macnamara 1992).

Despite the trend of increase in evaluation, in 1998 *PR Week* reports that still less than 5 per cent of most public relations budgets are spent on any kind of evaluation. In public relations textbooks evaluation is part of the planning process. There is a sharp contrast between American texts (which specify a range of techniques and approaches to evaluation) and the British public relations field, which is likely to be less knowledgeable and produces less research literature (Puchan, Pieczka & L'Etang 1999: 168).

Contemporary European interest in the field has seen the establishment of specialised interest groups in the 1980s and 1990s and the launch of a new journal, *Evaluation*, which takes a more European focus. More recently, there are signs that evaluation is becoming of more interest to the Latin countries.

The interest in evaluation has been stimulated by several important trends in society: the consumer interest movement, the implementation of measures to improve managerial effectiveness and the tendency to professionalisation in both the public and the private sector.

When White and Blamphin undertook their Delphi research study among United Kingdom academics and practitioners to discover what the national priorities for

research within the public relations industry were, evaluation came out top of the list. According to Gregory (1999:142), nothing has changed since then.

This is largely because there is increasing recognition in the communication world that to be taken seriously, there has to be evidence of the contribution made. There is growing evidence that organisations and clients require public relations and the communications functions to demonstrate their effectiveness and that showing a file of press cuttings is not enough (Gregory 1999:142).

White and Blamphin's Delphi study in the United Kingdom placed the "measurement and evaluation of public relations" as top priority for research. Academics have been urging practitioners to use more research at both strategic and planning levels and to get to grips with evaluation. They should investigate the value of research to the development of public relations and potential influence at boardroom level. There have been some debate about what it is in public relations that has to be evaluated - "measuring the effectiveness of public relations efforts has proved almost as elusive as finding the Holy Grail". The problem, it seems, is twofold. Firstly, what do we measure and secondly, how do we measure it? (Puchan, Pieczka & L'Etang 1999:170).

Since the Delphi study, there have been a number of initiatives. In 1996, a cross-industry body formed to devise a standard unit of measurement, the PR Point. This was followed in November of the same year by a two-day workshop attended by practitioners and media evaluation companies from Europe and the United States of America. The aim of the workshop was to devise a minimum international industry standard. In October 1997 the International Committee of Public Relations Consultancies Association (ICO) launched a client guide to designing measurable communication objectives. At the same time the Association of Media Evaluation Companies (AMEC) introduced a guide on media evaluation (Gregory 1999:143).

At a forum in November 1999 hosted by *PR Week* it was agreed to develop an evaluation tool kit endorsed by the participating bodies. As a result, the Public Relations Research and Evaluation Toolkit was launched in May 1999.

Although there is no standard methodology that can be employed to make evaluation simple, there is general agreement on a number of basic principles. Evaluation starts at the beginning of a programme, not at the end. There has to be clear understanding about the starting point. Next comes the setting of objectives. For substantial programmes these objectives need to contribute towards the achievements of the organisation's overall goals. The final stage is an assessment of whether or not the objectives were met, that is summative evaluation (Gregory 1999:143).

3.12. FORMAL RESEARCH

Market research specialists will confirm that monitoring the effectiveness of a public relations campaign is not as difficult as many people imagine; nor need it be an extremely expensive activity. It is essential that the measure is of the public relations effectiveness and that other changes are not inadvertently monitored; for example other influences could include an increase in the sales force, the effectiveness of a new sales manager, the impact of an advertising campaign etc.

Therefore, as the original objectives will probably have been phrased in relation to some form of quantifiable awareness or attitude factor, it is that which needs to be measured. In fact, attitude surveys are probably the most valuable method of assessing the effectiveness of the campaign. Attitude research should also be the benchmark against which future effectiveness can be measured.

Without the completion of the communications loop, communication is one-sided and one must then depend only on "gut feel" for guidance. But, what is "gut

feel"? It is the experience and background knowledge brought to bear in making business decisions. Research, in providing the feedback link, does not detract from this very important experience, nor does it replace it. Research **adds** to one's market knowledge, aiding communication managers in making more informed decisions.

The use of research to evaluate public relations programmes has been growing as client management steps up its demand for accountability throughout its operations. This has accelerated the growth of research departments at major public relations firms that measure everything from media coverage to behavioural shifts. The new bottom-line focus among clients has also led to the creation of strategic alliances between public relations and research firms (Harris 1998: 267).

Unlike the advertising business, which banded together decades ago to create standards for research, public relations has no unified measurement standards. Harris embraces the measurement model of Dr Walter K. Lindenmann, Senior Vice President and Director of Research at Ketchum Public Relations (Harris 1998: 267).

In 1988, Dr Lindenmann devised a survey of public relations research, measurement and evaluation to assess the full extent of public relations research in the United States. This survey provided the first clear picture of what practitioners believed or thought about research. As well, it gave insights into what they used research for, when they used it, and which techniques they mainly used (Walker 1997: 98).

According to Lindenmann (1998: 66) anyone can count press clippings and the mistake that many public relations practitioners make, is to do the same thing and pass the numbers and/or percentages that they come up with on to their senior management. They assume that by doing so they have "measured" the

effectiveness of their public relations programmes and activities. This is only an elementary first step in the very complex and involved process of seeking to measure and evaluate impact.

All they are doing, is measuring what many in the field call measuring public relations "outputs". *Outputs* are usually the short-term results of a particular public relations programme. It measures how well an organisation presents itself to others, that amount of attention or exposure that an organisation might receive (Lindenmann 1998: 66).

Measuring outputs need to be viewed as only the first step in the entire public relations evaluation process. By counting press clippings and reviewing the subjects that are covered in those clips practitioners can begin to measure possible *exposure* to public relations messages, but cannot measure whether target audiences actually saw the messages and respond to them at all (Lindenmann 1998: 67).

What are really needed are mechanisms for measuring awareness and comprehension, recall and retention, opinion and attitude change and behavioural patterns. The Ketchum Public Relations and Measurement Department concluded that to really determine, as fully as possible, whether a particular public relations programme or activity had an impact, or not, a two-step process was needed:

- setting in advance very specific and clearly defined public relations goals and objectives, and
- pin pointing those levels of measurement that are crucial to the organisation in determining to what extent those specific public relations goals and objectives have been met.

The Department found three levels for measuring public relations effectiveness:

Level 1 is the *basic* level for measuring public relations outputs. This measures the amount of exposure that an organisation receives from the media, the total number of placements et cetera. It includes content analysis, segmentation analysis etc (Lindenmann 1998: 67).

Level 2 is the *intermediate* level for measuring public relations outgrowths. It measures whether or not target audience groups actually *received* the messages directed at them, paid *attention* to them, *understood* the messages, and *retained* those messages in any shape or form (Lindenmann 1998: 67).

Level 3 is the *advanced* level for measuring outcomes. This measures opinion, behavioural change, determining if there has been a shift in views and/or how people actually act when it comes to an organisation, its products or its services (Lindenmann 1998: 67).

The different levels of measuring public relations impact can be plotted on a yardstick in a hierarchical fashion.

Permission was obtained to use the Lindenmann survey for an Australian study to identify behaviour, beliefs and attitudes using an existing instrument. The study of public relations research in Australia has attempted to uncover current practice in the industry and to identify the attitudes and beliefs of practitioners about the place of research in their work. It provides some new information about the beliefs underlying particular actions relating to public relations research, measurement and evaluation (Walker 1997: 98).

Organisations need a performance measurement management framework that allows for the choice of three important measures: effectiveness; efficiency and cost-effectiveness. While the discussion of communication product and programme effectiveness measurement still dominates communication

measurement literature, communication managers are finding that executive management is just as concerned with efficiency and cost-effectiveness as it is with effectiveness. It can be measured on three levels, being the level of product, programme and positioning.

3.13 MAJOR EVALUATION COMPONENTS

What are the major components that need to be evaluated? For any public relations evaluation research to be credible, five major components of the process or steps need to be taken into consideration. It is first setting specific measurable public relations goals and objectives. Then targeting public relations outputs, next targeting public relations outgrowths, eventually targeting public relations outcomes, and finally taking steps to link what has been accomplished in public relations to the ultimate business goals, objectives, and accomplishments of the organisation as a whole (Lindenmann 1998: 67).

According to Lee (1999:45) the sophistication of the measurement instrument can vary from a stratified random-sample survey with response sheets of computer-read bubbles to a quick pulse- and temperature telephone survey of arbitrarily selected employees. Responses to the questions are analysed in terms of awareness, understanding, acceptance and commitment and are then tracked back to the relevant kinds of formal, semiformal and informal communication they represent.

One fundamentally important point in all this stands out. The communicative power of programmes and policies (semiformal) and of decisions, behaviours and actions (informal) is a legitimate aspect of the communication professional's work. It is not realistic to expect the communication function to take responsibility for the organisation's communication processes and environment without it also addressing the critically important semiformal and informal communication (Lee 1999).

3.14 SETTING SPECIFIC MEASURABLE GOALS AND OBJECTIVES

This component has to come first as no one can really measure the effectiveness of anything, unless they first figure out exactly what it is they are measuring that something against. In setting public relations goals and objectives, it is usually important to recognise that measuring public relations effectiveness *per se* – that is, the management of an organisation's overall communications activities with its target audience groups or publics – can be difficult to do unless the individual elements or components of the programme are clearly defined. Instead of trying to measure public relations as a total entity, steps should be taken to measure the effectiveness of individual or particular public relations activities.

3.14.1 Measuring public relations outputs

Outputs are usually defined as the short-term, or immediate, results of a particular public relations programme or activity. Media content analysis is one of the principal methodologies used to measure media outputs. Outputs might also be the assessment of a specific event, a direct mailing campaign or how a chief executive officer handles himself or herself at a press conference. In any event, both the quantity and quality of outputs can be measured and evaluated (Lindenmann 1998: 69).

Macleod (1998:382) considers input as the first step. "Input provides benchmarks to answer the question: Where are we starting from?" Input research is a prerequisite to determine whether and to what extent attitudes and behaviour have altered (outcome) in line with objectives.

Output measures whether the message was sent and aimed at the target audience. One of the principal outputs is media evaluation – what message was sent, where did it appear, who would have seen it, and what impact did it have?

3.14.2 Measuring public relations outgrowths

As important as it might be to measure public relations outputs, it is far more important to measure public relations outgrowths. The usual starting point for any public relations outgrowth measurement is to determine whether target audience groups actually *received* the messages directed at them, paid *attention* to them and *understood* the messages (Lindenmann 1998: 69).

Macleod (1998: 383) labels this step "out-take" – the degree to which the audience has understood and retained the message imparted by public relations.

It is important to obtain benchmark data against which to measure any possible changes in awareness and/or comprehension levels. To determine whether there have been any changes at all in audience awareness and comprehension levels usually requires some type of comparative study, either a "before and after" survey or a test and control group study.

Two other outgrowth measures that are important for public relations practitioners to examine are whether those in the target audience group can *recall* the messages that are being disseminated, and whether they are *retaining*, in any shape or form, the information that is being directed at them (Lindenmann 1998: 69).

Although recall and retention studies have not been conducted that frequently by public relations practitioners, they clearly are important forms of outgrowth measurement that ought to be seriously considered by public relations professionals. Various data collection techniques can be used when conducting such studies, including telephone, face-to-face, postal etc (Lindenmann 1998: 69).

3.14.3 Measuring public relations outcomes

Outcomes measure whether the communication materials and messages that were disseminated have resulted in any opinion, attitude, preference and/or behavioural changes on the part of those targeted audiences to whom the messages were directed. "Opinion research" generally measures what people say about something. "Attitude research" on the other hand, is far deeper and more complex. Usually, attitude research measure not only what people say about something, but also what they know and think, what they feel and how they are inclined to act (Lindenmann 1998: 70).

According to Macleod (1998: 383) "Outcome is to what degree attitudes and behaviour have been affected".

The ultimate test of effectiveness - the highest outcome measure possible – is whether the behaviour of the target audience has changed, at least to some degree, as a result of the public relations programme or activity. It is general knowledge that it is hard to measure behaviour, because it is difficult to prove cause-and-effect relationships.

3.14.4 Measuring business and/or organisational outcomes

It is imperative that public relations practitioners take steps to link their accomplishments to the ultimate goals, objectives and accomplishments of the organisation as a whole. The objective is to relate public relations outcomes to such desired business and/or organisational outcomes as increasing market penetration, market share, sales and ultimately, increasing an organisation's profitability (Lindenmann 1998: 72).

Obstacles of evaluation in public relations practice include:

- Lack of understanding on the part of practitioners of the role of research and evaluation, and of the techniques of research

- Lack of understanding on the part of clients

- Lack of time and resources .

There is a second process embedded within the overall scheme outlined above. Evaluation takes place on a continuous basis to ensure the programme is on track and will meet the required objectives. There are three stages at which evaluation takes place.

The first stage is at the input level: was the information gathered for the campaign platform adequate; were the channels of communication selected correctly; was the message presented properly? (Gregory 1999:144).

The second stage is at the output level: how many messages were sent; how many people received them; how many were placed in the media; who considered them? (Gregory 1999:144).

The final stage is at the outcome level; what were the effects of these communications; how many changed their attitude or responded positively to the message? For some theorists there is an intermediate stage between output and outcome and that is outtake (Gregory 1999:145). Given that the process is not complicated, why is so little evaluation undertaken? Watson (1997:145) in his study of IPR members discovered that it was due to ignorance of methods, lack of budget and a lack of confidence in promoting evaluation to employers and clients.

What is clear is that evaluation is becoming a requirement. It can help put the professional communicator on an equal footing with other business professionals

who have to be accountable. What is incumbent on the professional communicator is that they learn about the different types of public relations research and how to conduct research properly (Gregory 1999:145).

Many of the factors that have shielded communicators from the need to evaluate are changing rapidly. Also, leading-edge communicators are engaging in more integrated and comprehensive interventions, so they can tie their multiple-tactic programmes to performance. Professionals in a related career, training, are already doing this. If employee and public communication professionals don't start, they will find their roles being taken over by others who are practicing a newer and more appropriate form of communication/knowledge management system (Baron 1997: 33).

3.15 SCORECARDS

Scorecards focus on many common elements, including: leadership; strategic management; customer focus; internal processes; and employee learning and change. Of these, strategic management, organisation and continuous improvement are the most important measures for the communication function.

3.15.1 Strategic management

This can be done, in part, by examining the correlation between corporate and business line objectives and actual work activities, and between communication function objectives and work activities.

3.15.2 Organisation

We examine organisational structures, roles and resource utilisation against planning priorities, production processes and client satisfaction. Does the

organisation of our work mirror the needs and priorities of our clients? (Likely 2000: 27).

3.15.3 Continuous improvement

We can conduct an examination of individual and group professional development plans, function knowledge management systems and archival or corporate memory mechanisms, and then compare them to client satisfaction, product and programme results, internal and external recognition programmes and industry benchmarks and trends (Likely 2000: 27).

For a communication manager to help position his or her organisation correctly in the market, it is important to be aware of and monitor the reputation of the organisation.

3.16 REPUTATION MANAGEMENT

In this section, the researcher will investigate what is meant by the term "reputation management". Intuition will always play a role in understanding your organisation's image. But you don't have to fly by instinct alone. More scientific measures are now appearing as a growing number of research firms and consultants, who see reputation management as a smart business opportunity, are offering more affordable and accurate reputation management tools (Klein 1999: 33).

A public relations executive who'd like to measure his company's reputation has many choices of products and providers. Among the firms offering reputation management services are Ernst & Young and PriceWaterhouseCoopers. But no matter which tools you use, some general criteria apply as you move into a reputation management study or survey. For example:

1. Get buy-in from the top. A company's top management needs to understand the importance of reputation management and measurement.
2. Measure all constituencies. A good gauge of a company's reputation considers the views of all its different stakeholders. "We say reputation is the reflection of an organisation over time, and as seen through the eyes of all its stakeholders".
3. It's not brand equity. Reputation must not be confused with brand equity, which is typically tied to how one audience – the consumer – views a company's products or services. Or with corporate identity, which really represents how the company defines itself. Reputation is all stakeholders' view of the entire organisation.
4. Measure over time. You ought to look at reputation as financial people look at the quarterly results. Once a benchmark study has been done, it's possible that some of the department's other regular duties – like monitoring media relations results – can contribute to regular updating of an understanding of its reputation.
5. Apply what you learn. Understanding how stakeholders view a corporation allows a public relations department to use limited resources more effectively and increase its effectiveness as a strategic business tool. The bottom line is that companies can't afford not to know their reputation and other constituencies (Klein 1999: 33).

The enormously challenging world of managing in the rapidly changing and highly competitive markets, the world of complex thinking, the speed at which change happens and evolutionary theories all have an impact on individuals in various work environments (Hardijzer 2000: 22).

3.17 KNOWLEDGE MANAGEMENT

Achieving success in the knowledge economy is one of the fundamental forces shaping the future of business. Knowledge is a fundamental driver of business

success and is effectively becoming an organisation's most valuable asset and its chief tool for creating wealth (Kelleher & Seekings 2000: 24).

In the knowledge economy a key source of sustainable competitive advantage and superior profitability within an industry is how a company creates and shares its knowledge.

Professionals can no longer know everything they need to know in order to do their jobs well and compete in the marketplace. They require instant access to critical information. In the future, organisations able to provide their members with rapid access to the full repository of knowledge are the organisations that are most likely to succeed.

3.17.1 The purpose of knowledge management

Every employee builds a wealth of knowledge through learning, skills development and daily behaviour. Every employee possesses knowledge of beneficial value to the company, yet most of this knowledge is not leveraged to the collective benefit of the organisation (Breedt 2000: 22).

The purpose of knowledge management is to integrate the collective knowledge of employees in such a way that the whole is greater than the sum of its parts. This information must then be made accessible to all relevant individuals within the organisation so that it may be utilised and applied to enhance the competence and competitive advantage of the organisation as a whole. In addition, knowledge management aims to provide the organisation with the ability to learn, and thus, undergo a continual process of change. With this change process comes the opportunity to improve and enhance the performance of the organisation (Breedt 2000: 22).

3.17.2 Knowledge Management Objectives

The objectives of knowledge management is *to develop a knowledge base* equal to all employees' knowledge, skills, behaviours, perceptions, values, principles and education within the organisation's specific culture, strategy and structure.

Following an integrated approach to identifying, capturing, retrieving, sharing and evaluating the enterprise's knowledge assets, enables the organisation to develop a knowledge base. These assets may include databases, documents, policies and procedures as well as uncaptured, tacit expertise and experience resident in the individual workers' minds (Breedt 2000: 23).

It has been suggested that we have gone beyond the human capacity to process information. The information overload currently experienced is the cause of more than a third of all reported stress-related illnesses. Symptoms of information overload include paralysis of analytical ability, feelings of being overwhelmed and a loss of control, increased anxiety and decreased self-confidence, and an increased tendency to blame others (Hardijzer 2000: 22).

Wurman (1989: 32) says: "Information anxiety is produced by the ever-widening gap between what we understand and what we think we should understand. Information anxiety is the black hole between data and knowledge. It happens when information doesn't tell us what we want or need to know".

A weekday edition of the New York Times contains more information than the average person was likely to come across in a lifetime in seventeenth-century England (Wurman 1989: 32).

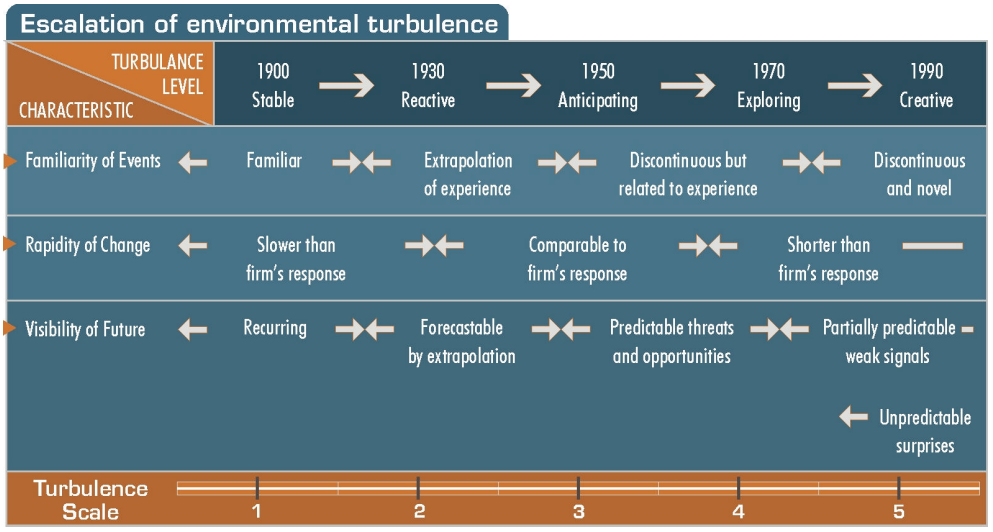
According to Wurman (1989: 35), more new information has been produced in the last 30 years than in the previous 5,000. About 1,000 books are published

internationally every day, and the total of all printed knowledge doubles every day.

Wurman (1989: 35) goes on to point out that, as we are confronted with increasing amounts of information, we are increasingly unable to cope with it. "The glut has begun to obscure the radical distinctions between data and information, between facts and knowledge… And the more images with which we are confronted, the more distorted is our view of the world".

Information overload is certainly not diminishing. Information technology has created a tidal wave of change to the extent that planning has become almost unrealistic due to market volatilities, complexity and the various evolutionary theories. The above is clearly indicated in the following figure.

Figure 3.1 Escalation of environmental turbulence



Source: Ansoff 1984

The explosion of information technology places a great deal of stress on our cognitive capacity to deal with so much choice. The high technology, high-

pressure society has made it difficult for individuals to cope with choices, with the ultimate impact of poorer choices due to time constraints.

According to Wurman (1989:39) “Meaning requires time-consuming thought, and the pace of modern life works against affording us the time to think”.

It seems clear that it is not only the pace of modern life militating against understanding and wisdom today, it is also the sheer volume and variety of information we are confronted with. People have only so much time. How they choose to spend their time is an important economic decision.

While computers have become faster and more powerful, there have been comparatively few resources put into educating people about how to cope with the mass of information with which they are confronted. Succeeding in the knowledge economy is not just about technological brilliance and innovation; an aspiring knowledge enterprise has also to overcome the biggest challenge of all – culture (Kelleher & Seekings 2000: 24).

Knowledge is power, but what about information? Can there be anything more *dis*-empowering than the torrent of information that cascades across our desks each week? It’s hard enough to keep one’s head above the unstoppable flow of information, much less make sense of it all.

The management of knowledge goes far beyond the storage and manipulation of data, or even of information. It is the attempt to recognise what is essentially a human asset buried in the minds of individuals, and leverage it into an organisational asset that can be used by a broader set of individuals on whose decisions the firm depends (More 1998: 353).

The Internet reveals that knowledge management is one of the hottest management topics on companies’ agendas. Why such intense interest in

knowledge management? The old adage, follow the money, provides some initial insight. With the increasingly complex problems that global organisations face every day, knowledge has become the currency of competitiveness and success.

Knowledge as an asset is beginning to supplant the traditional factors of production – land, labour and capital, and has become the most important new corporate and competitive resource. On average, about three-fourths of companies' market value stems from intangible assets of which the mainstay is intellectual capital – patents, copyright, trade secrets et cetera (More 1998: 353).

We should ask: "how do we know that we know what we know?" and "how does what we know shape our practical, daily activities?" Recognising the increasing value of information and knowledge to business success, many organisations have launched knowledge-management initiatives to leverage their competitive advantages (Mudge 1999: 25).

The spirit of knowledge management becomes reality in an organisational context when the principal knowledge management enablers – content, community and computing are brought together.

3.17.3 Content, community and computing

3.17.3.1 Content

Content focuses on managed content, which means that things we know about and know how to do are handled in a disciplined manner. Knowledge (content) can be classified as "tacit" or "explicit" and the difference shapes how the knowledge content will be managed (Mudge 1999: 6).

Explicit knowledge is what has been written or otherwise recorded. It includes books, manuals, patents, databases et cetera. *Tacit knowledge*, on the other hand, is personal, hard to formalise and communicate to others. Tacit knowledge often takes the form of a mental model: beliefs and perspectives so ingrained that they are difficult to articulate. It's the wisdom and expertise in people's heads (Mudge 1999: 6).

3.17.3.2 Community

Community is largely about collaboration. Often the collaboration centres round a business issue in which all community members have a vested interest. Community is the most significant differentiator between knowledge management and information management. A community might be defined by geography, organisational units, functional specialities, or shared topics of interest (Mudge 1999: 7).

3.17.3.3 Computing

Computing includes the gathering, storage and maintenance of content; it also provides access to content upon request of a community member. Computing can be thought of as both the requisite backbone of knowledge sharing and one of the most significant enablers (Mudge 1999: 7).

3.17.3.4 Content, community and computing working together

Millions of dollars are spent on collecting and moving content around within companies – increasingly over company Intranets. Companies must develop the processes, disciplines and know-how to focus on relevant, high-quality knowledge – *to become knowledge gourmets rather than knowledge gluttons*.

Collaborative advantage will go to those who use technology to create mutable and permeable boundaries between communities and to establish trust relationships with external communities (Mudge 1999: 8).

Companies need to manage their knowledge because in part knowledge has become their most important product. Effectively leveraging their knowledge assets is key to understanding their customers' needs and meeting those needs in innovative ways.

Once information is identified, collected and managed, it must be transformed into knowledge. This requires classification, analysis and synthesis – which require human intervention. Knowledge is not captured. What is captured is information that is more easily transformed into knowledge by the recipient. Knowledge management exists at two levels, namely:

3.17.4 Management of information

Knowledge equals objects. This entails the construction of information management systems. This track is new and growing rapidly, assisted by developments in information technology.

3.17.5 Management of people

Knowledge equals processes. The focus here is primarily on assessing, changing and improving human individual skills and behaviour. This track is not growing as fast as the track on information.

Organisational knowledge and memory can be retained in six places: namely individuals, organisational culture, organisational transformations, organisational structures, organisational ecology and external archives. Individuals do,

however, remain the prime location for retention of the organisation's knowledge (Hardijzer 2000: 22).

Most employees of knowledge companies are highly qualified and highly educated professionals - they are knowledge workers. Their work consists largely of converting information to knowledge, using their own competencies for the most part, sometimes with the assistance of suppliers of information or specialised knowledge (Hardijzer 2000: 22).

The effort of knowledge management is not new at all. Successful organisations have always made strategic use of the information at their disposal. The term is used rather widely to describe a host of quite different practices and activities, ranging from simple document management to business intelligence gathering to complex efforts to create "learning organisations" (Mudge 1999: 25).

In some companies knowledge management is led by the information technology unit; in others the impetus comes from specific business units such as sales and marketing.

Information technology can support organisation knowledge and memory in two ways: either by making recorded knowledge retrievable or by making individuals with knowledge accessible.

Managers in some of the fastest-growing and more profitable businesses focus on knowledge, see their business from a knowledge perspective and act as if their intangible assets are real assets. By freeing themselves from the mental straightjackets of the industrial age, some of these pioneer managers have found a wellspring of limitless resources arising from the infinite human ability to create knowledge and benefit from the convenient fact that, unlike conventional assets, knowledge grows when it is shared. Knowledge on its own then cannot represent power, only knowledge sharing will (Hardijzer 2000: 22).

Knowledge management is both a discipline and an art. It's a management discipline insofar as processes can be defined and implemented to capture and tend the knowledge, to make it available to the workers, to keep track of who is contributing to the knowledge arsenal and who is applying it well, and so forth (Mudge 1999: 6).

But it's the art part that actually causes knowledge management to work. Knowledge management takes aim at evolving people's attitudes and work behaviours to effect new heights of collaboration – *the intentional sharing of ideas, information, knowledge and work itself* – in support of a business need. It's about changing people's value paradigm from "my information is power" to "sharing is power" (Mudge 1999: 6).

According to (Mudge 1999: 6) we might define the *spirit* of knowledge management as:

- Knowing individually what we know collectively and applying it.
- Knowing collectively what we know individually and making it (re) usable.
- Knowing what we don't know and learning it.

Knowledge management is about changing the culture of an organisation in order to exploit the full breadth and depth of experience and expertise contained within. Traditionally, knowledge has been seen as a source of power and competitive advantage for the individual – something to be hoarded. The overriding aim of any knowledge management programme is to get people to share their knowledge with the rest of their community and to see that it is in their best interest to do so (Alexander & Ward 1997: 167).

The ability to manage human intellect and its conversion into useful "product" is, perhaps, the most critical management skill in our age, providing the ultimate in competitive edge. In most organisations managing intellectual capital and more

specifically the human side of knowledge management, remains largely unexplored territory (More 1998: 353).

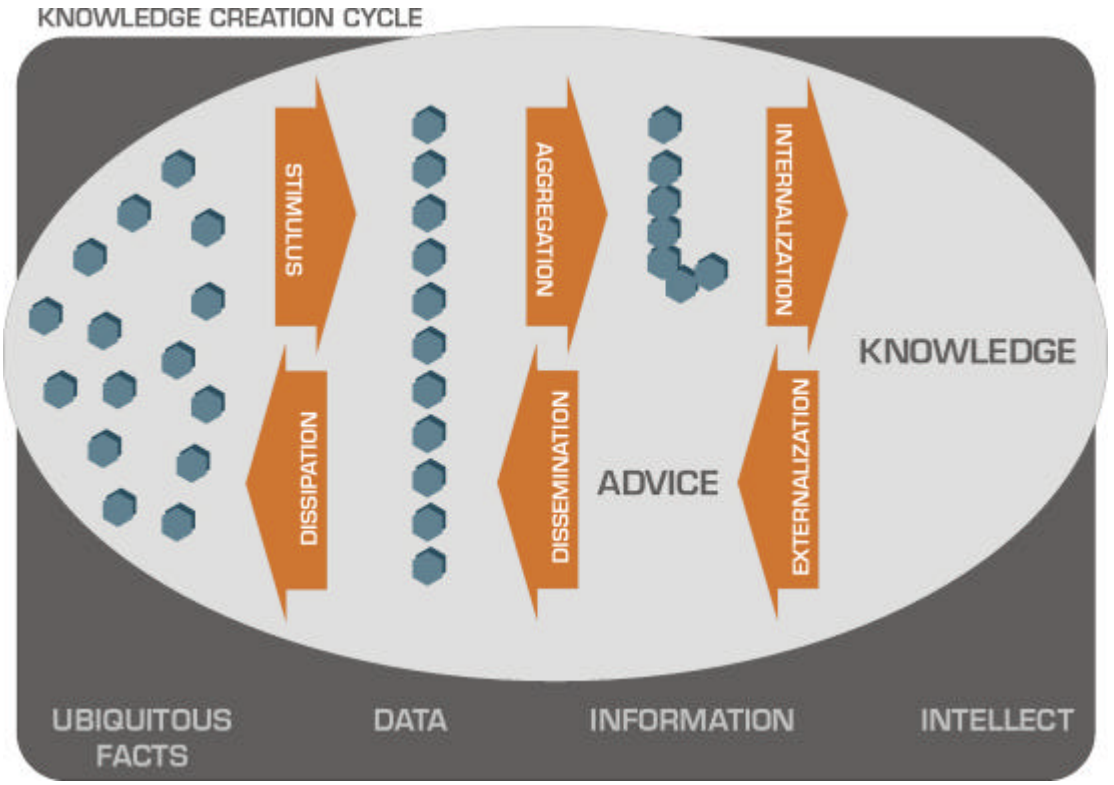
3.17.6 The nature of knowledge management

It's helpful to understand knowledge management's relationship to information management before delving further into how knowledge management works. Information management typically is associated with the industrial era. It focuses on using information technology to enable the collection and management of explicit business information, largely for purposes of management reporting within hierarchical organisations (Mudge 1999: 6).

Knowledge, in contrast to information, could be thought of as the best understanding that we have about a particular topic at a given point in time. Because knowledge is rooted in human experience and social context, managing it will mean paying attention to people, culture and organisational structure, as well as to the information technology that is an essential tool for knowledge sharing and use in large organisations.

There should be a differentiation between data, information and knowledge before defining knowledge management. The relationships between these entities are illustrated in the following knowledge creation process.

Figure 3.2: The Knowledge Creation Cycle



Source: Breedt (2000)

Knowledge, in theory, is a product of a continuous cyclical process that starts by organising ubiquitous facts through specific stimuli into structured data and then developing information through a process of aggregation. Once information is internalised by a knowledge worker it is used to create knowledge and understanding. Once the knowledge worker expresses this understanding in a structured form it becomes information, e.g. advice, which is then disseminated to yet again form data and is finally dissipated to become mere facts (Breedt 2000: 16).

Knowledge is what is learned or retained after data or information is forgotten or the product is sold. Examples of knowledge include knowing where things are,

how they can be found, understanding and comprehending as well as developing believes and values that are used to facilitate decision making. Knowledge promotes understanding and proposes action whereas intelligence is the efficient use of information to produce more knowledge (Breedt 2000: 16).

According to a variety of authors (Miller 1999: 12; Mitchell 2001: 8; Bednar 1999: 22) knowledge management is in trouble, to the benefit of the communication professional. Companies have been ploughing huge organisational resources into knowledge management for a couple of years, only now to hit what they call "cultural blockages". This is a polite way of saying that, even though all the information technology systems are in place, our people still won't talk to each other.

This initial failure may prove a blessing. Now that knowledge management initiatives are losing momentum, there's a glorious opportunity for the internal communication function to step in and invigorate the field. By galvinising knowledge management activity, you will gain the boundless gratitude of information technology, knowledge managers and of the chief executive officer (Miller 1999: 12).

According to Miller (1999: 12) there are six ways that internal communication can mobilise knowledge sharing in the company.

1. Show people what's in it for them
2. Create neighbourhoods everywhere
3. Get those neighbours talking
4. Generate terrific content
5. Show why trust is vital in any neighbourhood
6. Show people how knowledge management can benefit your internal public relations.

3.17.7 Knowledge creation

The target of a process for knowledge creation is to enhance the potential of creating innovations. Firstly, knowledge domain members start by creating collective tacit knowledge by jointly experiencing new work processes, tasks, technological characteristics, use of technologies et cetera. This is not an easy process. Members of the knowledge domain must spend considerable time together, discuss and reflect upon their experiences, observe how their colleagues solve tasks and interact with technologies and explain and give sense to their actions (Aben, Nonaka & Von Krogh 2001:424).

In the next phase, the team attempts to make these collective experiences explicit, through agreeing on proper, just and accurate descriptions of their experiences. In the third step, this concept then becomes subject to scrutiny. It is matched against market data, consumer trends and technological requirements. A concept that successfully passes through this phase is transformed into a prototype process, product or service (Aben, Nonaka & Von Krogh 2001:424).

While these four steps typically cover the major steps of knowledge creation, the fully-fledged process goes further by integrating the newly created knowledge in existing manufacturing, marketing and sales. An important issue of knowledge creation is to enhance the pace of innovation and to reduce the time span to commercial success in the market (Aben, Nonaka & Von Krogh 2001:424).

3.17.8 Knowledge transfer

Knowledge transfer with external partners is also important. Strategic partnerships provide mutual access to other companies' knowledge. Research and training agreements with universities and other research institutions provide companies with access to recent research knowledge.

3.17.9 The relationship between corporate communication and knowledge management

3.17.9.1 The nature of our work is changing

While even the most technologically savvy organisation will always need carefully crafted messages and skillful practitioners to convey those messages, the Internet, e-mail, and Intranets are spurring profound changes in organisational communication. Participating in knowledge management initiatives will enable communicators to develop and extend these new competencies (Mudge 1999: 27).

3.17.9.2 Communicators already know something fundamental about knowledge management

"True knowledge management is taking all that information out there and structuring it in ways that work to the advantage of both the individual and the organisation".

In addition to crafting messages, communicators provide structure and context for an audience, and that is the fundamental act in knowledge making. According to Mudge (1999: 27), departments like information technology or finance have their own agendas. But a communicator's agenda is to be the glue. It is all about your audience and not about you.

3.17.9.3 Knowledge management is interesting

According to Mudge (1999: 27), this new discipline attempts to address fascinating and complex technological and organisational issues that have large implications for a business's bottom line. By getting involved in these initiatives

now, communicators can help shape the discipline in ways that are useful to an increasing number of people and organisations.

3.17.10 Strategic knowledge management

In order to manage competence (human knowledge) there must be an understanding of how employees, and in particular professionals, should be recruited, developed, motivated, and rewarded. To achieve this, dependence on external experts needs to be decreased as the knowledge and wisdom exists within the internal structure. Some other strategies that could be considered are:

- Implement distinct strategies for information and knowledge. An information-focused strategy will address the development of information technology, while a knowledge-focused strategy addresses the intangible assets, assets that convert invisible revenues from a large number of activities into tangible revenues (Hardijzer 2000: 27).

- Establish a learning culture. If people cannot learn how to learn, they run the risk of becoming "walking encyclopaedias" of outdated information. The learning process therefore will require a creative destruction of barriers to learning and the broadening of access to new sources of knowledge and experience. It also needs to be understood that learning can be formal, informal of incidental (Hardijzer 2000: 27).

- Expand the virtual office. The knowledge worker can be accommodated in terms of working from home or anywhere else for that matter.

If you want to make the most out of your company's knowledge, knowledge strategy formulation and choice need to be tightly coupled with other strategic activities within the company. The development of a knowledge-based

advantage requires adequate attention and resource allocation paralleling the development of other types of company advantages.

A company benefits from taking a proactive approach to its knowledge and expertise, rather than just letting knowledge drift and evolve at the periphery of management's attention. In this sense, strategising in the knowledge economy is about moving away from "driving ahead by looking in the rear-view mirror" to "driving ahead by knowing what is around the corner."

As was discussed, the organisation must provide an incentive for employees to share knowledge and apply it to the mutual benefit of employees, departments and the organisation.

3.18 CONCLUSION

According to Hardijzer (2000: 27), knowledge management is an abstract concept that have become over-hyped and misunderstood. It is not a technology tool but an amalgamation of strategy, technology and human application.

To take advantage of knowledge management requires investment. Knowledge exists in people, not in technology, and requires human effort. Technology can help to capture and store information, but it cannot create knowledge.

Knowledge management should not be allowed to become a stand-alone fad. In order to successfully build a knowledge-sharing culture, it's vital to integrate knowledge management messages with an organisation's wider corporate communication efforts.

Knowledge is partially a result of research and the scanning of the internal and external environment. Employees will not share their knowledge capital unless

they feel safe and feel that they will receive benefit from their actions. Sound corporate communication will enhance this process.

In many instances employees that are not on a managerial level can make considerable contributions to the knowledge base of the organisations. A specific culture of learning, and failure being part of the learning and knowledge creating process, will add value.

The primary objective of knowledge management is to create and maintain superior knowledge by making it available at point-of-need and enabling a learning-organisation culture for the future.

In this chapter, the researcher investigated and conceptualised communication research. Attention was also given to the application and management of communication research.

Environmental scanning is the focus of Chapter Four. The origin of environmental scanning and it's correct application and management also receives attention. The valuable contribution of this research technique is also discussed.

CHAPTER FOUR
ENVIRONMENTAL SCANNING

4.1 INTRODUCTION

In Chapter Three, the development and importance of communication research received attention. The importance of the use of research for the communication professional was also addressed. The focus is on the relationships in communication. Knowledge management also received attention.

In this chapter environmental scanning and the growing need for scanning are discussed. The various environments that need to be scanned, the levels of scanning and scanning techniques are discussed. Previous research on scanning is also included.

To truly deliver the products and services clients, stakeholders et cetera need, you first have to understand the external forces of the constantly changing world in which they operate. According to Boyers (1997: 26) change has become the essence of management, so to survive and prosper in the future, you and your organisation will have to perfect “outside-in” thinking skills: to relate information about developments in the external world to what is going on internally.

Strategic management is an ongoing process that involves attempts to match the organisation with its changing environment. It includes adapting the organisation itself to fit the external environment. An organisation’s environment affects strategy and performance to a great extent.

In the past the assessment of an organisation’s environment were informal and intuitive. Today it has become one of the most challenging aspects of the strategic management process.

It has repeatedly been emphasised that excellent companies take an *outside-inside* view of their business. They recognise that the environment is constantly spinning out new opportunities and threats. These companies recognise the vital importance of continuously monitoring and adapting to the changing environment.

Too many other companies, unfortunately, fail to think of change as opportunity. They ignore or resist critical changes until it is almost too late. Their strategies, structures, systems and business culture grow increasingly obsolete and dysfunctional.

During the last few decades, changes in the environment threatened many organisations, resulting in restructuring and downsizing for many. Management increasingly realise that it is not optional to understand the organisation's environment and change along with it.

According to Kotler (1994: 151) corporations as mighty as General Motors, IBM and Sears are brought down to their knees for ignoring macro environmental changes too long. They also normally spend more time in the customer and competitor environment. By conducting systematic environmental scanning, marketers are able to revise and adapt marketing strategies to meet new challenges and opportunities in the marketplace.

Without taking into account relevant environmental influences, a company cannot expect to develop its strategy. Environmental scanning is a comparatively new development. Traditionally, corporations evaluated themselves mainly on the basis of financial performance. In general, the environment was studied only for the purpose of making economic forecasts. Other environmental factors were brought in haphasardly, if at all, and intuitively. In recent years, however, most large corporations have started doing systematic work in this area (Jain 1993: 133).

There is thus increasing pressure to make greater investments in personnel and systems gathering environmental information, to reduce some of the uncertainty encountered in strategic decision making.

According to Steyn & Puth (2000: 165), the consequences of environmental changes need not be negative. Whether this is indeed the case, depends almost entirely on:

- The speed, accuracy and interpretation of the information
- The communication regarding the changes
- The rapid internal re-orientation of the organisation.

Scanning systems facilitate the gathering of early signals in a thorough and consistent manner. Scanning can generate information that enables top managements to move beyond reactive adaptation into a more proactive influencing of their environmental conditions.

Environmental scanning can also be regarded as the "first step in the ongoing chain of perceptions and actions leading to an organisation's adaptation to its environment". It is a process in which an organisation learns about events and trends in the external environment, establishes relationships between them, and considers the main implications for problem definition and decision making (Steyn & Puth 2000: 166).

Managers and organisations acquire information for two reasons. In the "reactive" mode information is acquired to solve a specific problem. In the "proactive" mode, also referred to as environmental scanning, the purpose of the information acquisition is exploratory, to detect potential problems and opportunities. In other words, moving beyond seeking information in order to choose among alternatives to monitoring the environment for surprises.

Perhaps its greatest benefit is its reinforcement of the need for comprehensive thinking and approaches in defining an organisation's purpose. Strategic planning is directly related to an organisation's environmental scanning capabilities (Burack & Mathys 1989: 82).

Many companies have implemented various processes and procedures and, in some cases, created new organisational units in an effort to recognise and take advantage of changes, advances and trends occurring in the external environment (Maier 1992: 66).

One of the basic processes of any organisation is acquiring data from the external environment to be used in problem definition and decision making. This process is called "environmental scanning." Used in this context, the "environment" consists of all those events, happenings or factors with a present or future influence on the organisation. The reason an organisation scans it environment is to attempt to alter its state-of-affairs, its internal structure or function, or some aspects of its environment (Maier 1992: 66).

Theorists have taken the view that organisations internally specialise in conducting their exchanges with the environment. The individual organisation members responsible for informational and substantive exchanges with the environment have been labeled "boundary spanners" and they have been attributed with certain roles, attitudes, power bases and so on (Hambrick 1981: 299).

According to Daft & Weick (1984: 285), building up interpretations about the environment is a basic requirement of individuals and organisations. Information about the external world must be obtained, filtered and processed into a central nervous system of some sorts, in which choices are made.

Steyn & Puth (2000: 166) states that environmental scanning could therefore be seen as part of the interpretation process in an organisation.

- *Scanning* is the data collection
- *Interpretation* is translating events and developing shared understanding amongst top managers; and
- *Learning* is the process by which knowledge about outcome relationships is developed.

The organisation must find ways to know the environment. Interpretation is a critical element that distinguishes human organisations from lower level human systems.

Environmental scanning - the managerial activity of learning about events and trends in the organisation's environment - is one of the tasks comprising the broader boundary spanning role. Environmental scanning can further be conceived of as the first step in the ongoing chain of perceptions and actions leading to an organisation's adaptation to its environment (Hambrick 1981: 299).

According to Choo (1998: 21) environmental scanning is the acquisition and use of information about events, trends and relationships in an organisation's external environment, the knowledge of which would assist management in planning the organisation's future course of action.

Organisations scan the environment in order to understand external forces of change so that they may develop effective responses that secure or improve their position in the future. To the extent that an organisation's ability to adapt to its outside environment depends on knowing and interpreting the external changes that are taking place, environmental scanning constitutes a primary mode of organisational learning (Choo 1998: 22).

Hambrick (1981:193) describes environmental scanning as an "important process of strategic management because scanning is the first link in the chain of perceptions and actions that enable an organisation to adapt to its environment".

Snyder (1981: 5) defined environmental scanning as the "monitoring, evaluating, and disseminating of information from the external environment to key managers within their organisations". Before chief executive officers formulate their organisation's strategy, they scan the external environment to identify potential opportunities and threats.

For more than a decade, researchers have been interested in how chief executive officers scan their environment and use this information to gain competitive advantage (Jennings & Lumpkin 1992: 79). Although several studies have been conducted on chief executive officers' environmental scanning activities, little is known about the relationship between these activities and organisational strategy.

Environmental scanning is complementary to, but distinct from, information gathering activities such as competitor intelligence, competitive intelligence and business intelligence.

According to Michael Porter, the objective of competitor intelligence is "to develop a profile of the nature and success of the likely strategy changes each competitor might make, each competitor's probable response to the range of feasible strategic moves other firms could initiate and each competitor's probable reaction to the array of industry changes and broader environmental shifts that may occur" (Choo 1998:22).

Competitor intelligence is therefore focused on the actions, behaviours and options of one or more existing or potential competitors.

Competitive intelligence refers to the analysis of competitors as well as competitive conditions in particular industries or regions. The Society of Competitive Intelligence Professionals defines competitive intelligence as the "process of monitoring the competitive environment" that "enables senior managers in companies of all sizes to make informed decisions about everything from marketing, research and development and investing tactics to long-term business strategies" (Choo 1998: 22).

Business intelligence has a similarly broad scope and has been described as "the activity of monitoring the environment external to the firm for information that is relevant for the decision-making process in the company." In practice, business intelligence often concentrates on current competitors as in competitive intelligence, but may also include areas such as analysis potential acquisitions and mergers and risk assessments for particular countries (Choo 1998: 23).

Environmental scanning casts an even wider net and analyses information about every sector of the external environment that can help management to plan for the organisation's future. Scanning not only covers competitors, suppliers and customers, but also includes technology, economic conditions, political and regulatory environment and social and demographic trends (Choo 1998: 23).

Scanning, however, is no end in itself. The real value of scanning kicks in when the organisation looks beyond the issues it has identified to visualise the implications for your particular industry or profession. "The more you can involve wider circles in the discussion of the trends and what they mean, the greater the chance that you will institutionalise a way of thinking so that you continuously bring new knowledge to bear on all your decisions", says Boyers (1997:27). "Then you become long-sighted instead of short-sighted."

A pioneering study on environmental scanning was done by Francis Aguilar. In his investigation of selected chemical companies in the United States and Europe, he found no systematic approach to environmental scanning. Aguilar's initial 16 types of information about the environment that the companies found interesting have been consolidated in five groups: market tidings, acquisition leads, technical tidings, broad issues, and other tidings. Among these groups, market tidings were found to be the dominant category and were of interest to managers across the board (Jain 1993: 133).

Aguilar (1967) suggested there are two basic methods of scanning: surveillance (monitoring) and search. Surveillance means to observe or watch over the environment with interest for the purpose of providing the scanner with some general knowledge. Surveillance is less directed or more general than search. Search means seeking specific information in the environment to apply to a particular problem. These two methods are not exclusive of each other. It is possible, even likely, that a company will be involved in both methods simultaneously. The level of intensity given to these methods of scanning indicates the intensity of an organisation's environmental scanning activities.

The intensity of the scanning process depends on (1) the nature of the relationship between the organisation and its environment and (2) the nature of the environment (Kefalas & Schoderbek et al 1973). The author suggested the nature of the relationship between the organisation and its environment is determined by the degree to which the organisation depends on its environment for survival. The greater the dependence, the greater the intensity of scanning will be. By "nature of the environment" the author referred to the frequency and magnitude of changes occurring in the external environment.

Kefalas & Schoderbek et al (1973) classified a slowly changing environment as relatively "stable" and a rapidly changing environment as relatively "dynamic". The greater the frequency of change and the greater the magnitude of change

(i.e. the more dynamic the environment), the greater the intensity of scanning will be.

The literature does not explicitly define "intensity of the scanning process" however, scanning intensity can be viewed as the amount of effort an organisation puts into its environmental scanning activity. Determining the level of scanning intensity for a particular organisation is very difficult because the effort an organisation puts into its scanning activity is not directly measurable. Consequently, it is necessary to look for surrogate measures to determine the level of scanning intensity (Maier 1992: 73).

The best measurable determinants of scanning intensity appear to be (1) time – the amount of time dedicated to the scanning process; (2) resources – resources dedicated to the scanning process (e.g. people, budget, organisational unit etc.) and (3) frequency – how often scanning activities are performed.

If an oracle could predict the next forty years with perfect accuracy, what would you do with the information? As the pace of change in the business environment continues to accelerate, confidence in our ability to forecast the future in which we will be operating seems to have gone the way of the fin-tailed cars and poodle skirts of the '50s (Schriefer 1998: 26).

Winston Churchill said that the further back you look, the further forward you will see. The environment is changing at a faster rate now than it was in Churchill's day. Change is often incremental and even profound changes may not be noticeable in a short time frame. To look ahead five years in an industry, it may be necessary to go back ten years to really see the trends. And these trends are likely to have a far broader impact than we might think (Schriefer 1998:26).

The real purpose is not to predict the future, attempting to "get it right", but to change the mental models of the key-decision makers by broadening their

perceptions and reframing their perspectives. In order to do this successfully, planners must have a clear understanding of what is on the minds of the senior team.

An example of an environmental trend, America's insatiable appetite for eating out, worries food companies like Kraft. In response, Kraft is trying to make cooking as convenient as eating out (e.g. by providing high-quality convenience foods) to win back food dollars (Broom & Dozier 1990: 128).

4.2 MEGATRENDS

The Naisbitt Group has identified 10 megatrends that will deeply affect individuals and businesses.

1. From fixed to responsive systems

Businesses and government agencies are responding to changing consumer and employee needs by showing a new flexible attitude toward a fast-paced and convenience-oriented society. Shared jobs and arranged office hours are examples of a responsive system.

2. From nation state to business state

Business leaders are the politicians of the future. World wide, corporations deal with domestic and international issues once considered the sole purpose of government. The future will also bring a new breed of politician, who runs his or her government like a corporation, heavily promoting advantages for the business.

3. From technological complexity to technological "transparency"

Tomorrow's technology will be so efficient that we won't even notice it's here. This is the trend towards transparency – invisible technology that is so simple to use, it's taken for granted.

4. From the mass middle to the extremes

Manufacturers, hospitals, shopping malls and magazines – all are profiteers (and victims) of the shift from the mass middle to the extreme. In both business and society, the nation is moving away from middle size, middle quality, and middle price.

5. From a national lifestyle to a global lifestyle

Deep-dish pizza in New Delhi, coffee and bagels in Tokyo and "les shakes" along the Champs-Elysees are all part of the globalisation of lifestyles, an international crisscross of work and leisure trends.

6. From a permissive to an "open square" society

If you think society is sending you mixed signals, you're right. Today's society is both "square" and open at the same time. Call it the age of social paradox, a time when seemingly contradictory events and attitudes occur simultaneously.

7. From competition to cooperation

No company is an island. That is what today's businesses are discovering as more and more of them join forces to overcome operating and advertising costs. But don't think that the business environment will be any less competitive in the

future. Cooperation will be just another tool savvy businesses use to compete more successfully.

8. From responsibility by institution to responsibility by function

Once upon a time we took for granted that governments would provide public services, mothers would raise children, religious institutions would set moral values and schools would educate. But massive social and economic changes over the last two decades have altered these expectations. This relentless restructuring of societal responsibility will call for a more responsive and flexible style of leadership in all institutions.

9. From central city to polynucleic metropolis

There is a demographic shift away from the central city to sprawling "urban villages" sprouting up in the suburbs outside major metropolitan areas. In scores of places globally, bedroom communities and farmland are being transformed into mega centres, providing less expensive housing, but choking transportation and educational systems. This is a shift that directly influences our quality of life.

10. From complacency to accountability

It's nearly impossible to get away with anything these days. While we've grown more tolerant of people's foibles, we also demand that individuals and business be held accountable for their actions.

To survive and prosper in the midst of a changing environment, companies must stay at the forefront of changes affecting their industries. Firstly, it must be recognised that all products and processes have performance limits and that the closer one comes to these limits, the more expensive it becomes to squeeze out the next generation of performance improvement (Jain 1993: 131).

Secondly one must take all competition seriously. Normally competitor analyses seem to implicitly assume that the most serious competitors are the ones with the largest resources. This assumption is frequently not adequate (Jain 1993: 131).

Thirdly, if the environmental changes promise potential advantage, one has to attack to win and attack even to play the game. Attack means gaining access to new technology, training people in its use, investing in capacity to use it, devising strategies to protect the position, and holding of on investments in mature lines (Jain 1993: 131).

Fourthly, the attack has to begin early. The substitution of one product or process for another proceeds slowly and then can explode (Jain 1993: 131).

Fifthly, a close tie is needed between the chief executive officer and the operating managers. Facing change means incorporating the environmental shifts in all aspects of the company's strategy (Jain 1993: 131).

The first step is to identify emerging issues before they strike, much like earthquake forecasters scan fault lines for signs of abnormal activity. Because significant issues may emerge from unexpected places, it is important to scan the macro environment for social, technological, economic, environmental, and political developments (Boyers 1997: 27).

Without ongoing research, you cannot update your understanding of the problem. The definition often begins as the result of informal, even unsystematic monitoring of the environment. "Scanning for planning" applies here. Environmental scanning is the detection, exploration, and description of public relations problems through formal and informal research (Broom & Dozier 1990: 24).

Whereas informal and opportunistic scanning of the environment may alert you to a potential problem, you use more formal and systematic observations to explore, confirm and describe the problem.

Aguilar (1967) identified four modes of scanning the environment:

- Undirected viewing: general awareness about the environment, for example reading the daily newspaper
- Conditioned viewing: the scanner is sensitive regarding specific data that might influence his or her work
- Informal search: there is an active search for information, but in a limited and unstructured manner
- Formal search: a deliberate, planned attempt to gather specific information for a specific purpose.

4.3 THE CONCEPT OF ENVIRONMENT

The external environment, consisting of variables that are not typically within the short-run control of management, contains task and societal environments. The task environment includes groups that directly affect the organisation and are affected by it. Examples are governments, local communities, suppliers and labour unions.

The societal environment includes more general economic, sociocultural, technological, and political-legal forces that do not directly impact the short-run activities of the organisation but often influence the long-run decisions.

Operationally, five different types of environments may be identified – technological, political, economic, social and regulatory – and the environment may be scanned at three different levels in the organisation – corporate, strategic business unit, and product/market level (Jain 1993: 132).

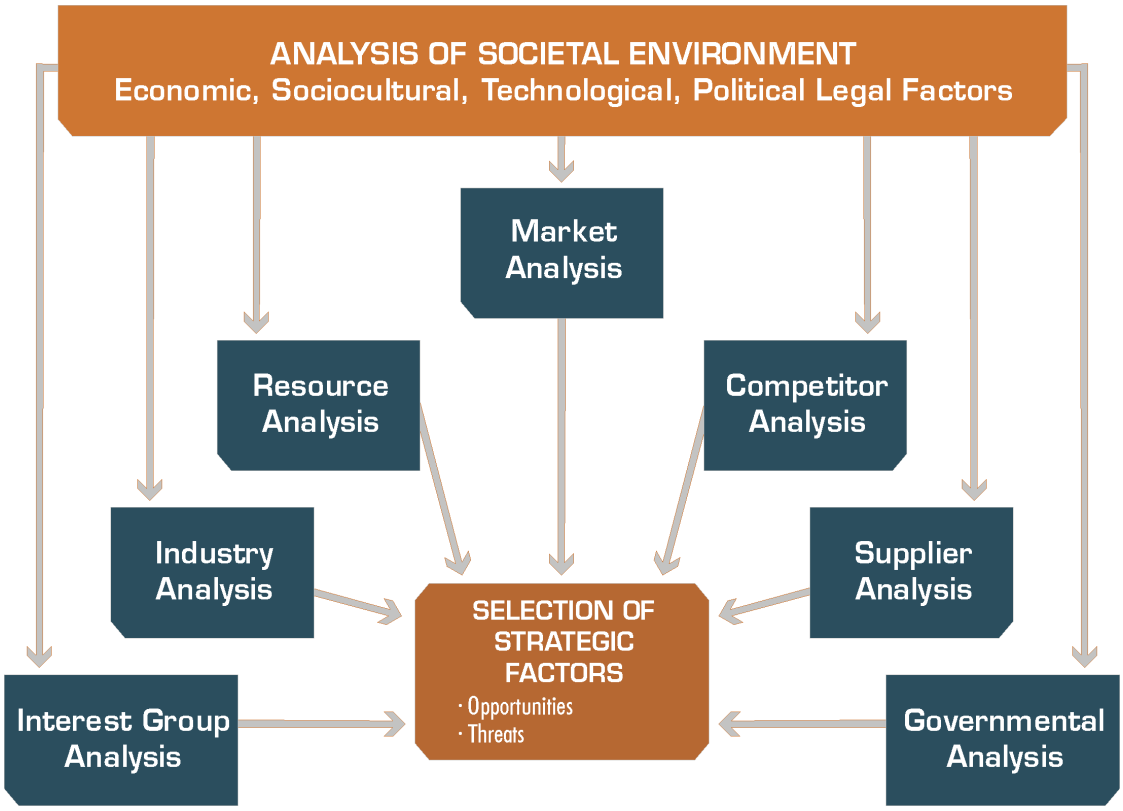
The Hunger & Wheelen process, with their model (Figure 4.1) describes the process as follows:

1. Identification of the strategic factors in the macro-environment that, according to top management, has the largest potential to influence the activities of the organisation

2. Determine the mega-trends with reference to each strategic factor

3. Determine the impact of each strategic factor from a macro and immediate

Figure 4.1 Scanning of the external environment



Source: Hunger & Wheelen (1986)

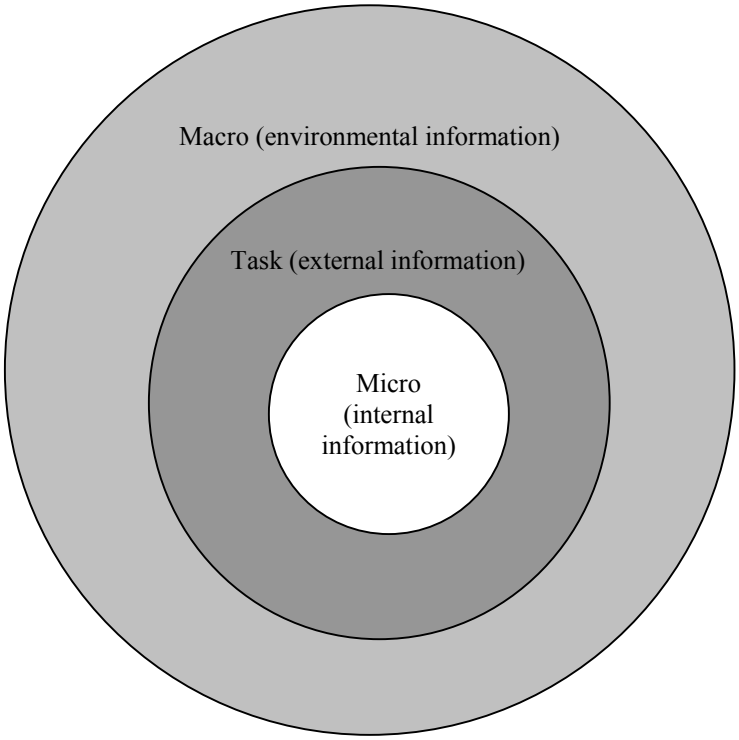
Perspectives of environmental scanning vary from level to level. Corporate scanning broadly examines happenings in different environments and focuses on trends with corporate wide implications.

4.4 TYPES OF ENVIRONMENT

There are three categories of information and information systems of interest to an organisation:

- Internal information - on operations within the organisation
- External information - on factors outside the organisation with which the organisational members interact directly on a regular basis, and
- Environmental information - on factors outside the organisation with which the organisation does not interact directly, but which might affect operations. This broader social, economic or technological climate includes legislative and regulatory trends, pressure groups and technological and demographic trends (Steyn & Puth 2000: 168).

Figure 4.2 Environmental, external and internal information



Source: Steyn & Puth (2000: 169)

Corporations today, more than ever before, are profoundly sensitive to technological, political, economic, social and regulatory changes. Although environmental changes may be felt throughout an organisation, the impact is strongest on strategic perspectives. To cope with a changing and shifting environment, the marketing strategist must find new ways to forecast the shape of things to come and to analyse strategic alternatives and, at the same time, develop greater sensitivity to long-term implications (Jain 1993: 138).

Environmental scanning is considered a simple process by some in that the critical information required to analyse the industry and market environment is often readily available to all competitors. This is taking a narrow view of environmental scanning. It is not sufficient to track only the organisational strategies, structures, and resources employed by an organisation's competitors. Neither is it sufficient to track only the inclinations, products and potential products that customers will want or demand.

Top management should also scan the economic, technical, political, social and ecological forces that work in the global economy, as well as the opinions and behaviour of its stakeholders. This is a far more complex process, since the number of areas that have to be monitored in this case is large (Steyn & Puth 2000: 166).

The relative importance of scanning particular areas changes over time as organisational circumstances change. On the other hand, firms advanced in environmental scans, by definition, pursue all the domains (Burack & Mathys 1989: 84).

4.4.1 TECHNOLOGICAL ENVIRONMENT

The most dramatic force shaping people's lives today is technology. Technology has released such wonders as open-heart surgery; horrors as nerve gas and blessings as the automobile (Kotler 1994: 162).

Three different aspects of technology are category, process, and impetus. Technology itself can be grouped into five categories: energy, materials, transportation, communications and information, and genetic. The original impetus for technological breakthroughs can come from any or all three of the following sources: meeting defense needs, seeking the welfare of the masses, and making a mark commercially (Jain 1993: 142).

The 1990s certainly were a period of technological change and true innovation. One of the areas of greatest impact was communications. Until a few years ago, electronic communication has largely been confined to the traditional definition of voice (telephone), pictures (television) and graphics (computer), distinct kinds of communication devices. Electronics has increasingly produced total communications.

The following trends in technology should be watched.

4.4.1.1 Accelerating pace of technological change

Many of today's common products were not available 30 years ago. John F Kennedy did not know personal computers, digital wristwatches and video recorders. More ideas are being worked on, the time lag between new ideas and their successful implementation is decreasing rapidly (Kotler 1994: 162).

4.4.1.2 Unlimited innovation opportunities

Scientists today are working on a startling range of new technologies that will revolutionize our products and production processes. The challenge is not only technical but also commercial, namely, to develop affordable versions of these products (Kotler 1994: 163).

4.4.1.3 Varying research and development budgets

The United States leads the world in annual research and development expenditures. Increasingly, research directed toward major breakthroughs is being conducted by consortiums of companies rather than by single companies (Kotler 1994: 163).

4.4.1.4 Increased regulation of technological change

As products become more complex, the public needs to be assured of their safety. Consequently, government agencies have expanded their powers to investigate and ban potentially unsafe products (Kotler 1994: 163).

4.4.2 POLITICAL ENVIRONMENT

Political trends have a significant impact on business. The value of the dollar is the perfect illustration of the overwhelming impact that political shocks can have on the world economy. Marketing strategy is deeply affected by political perspectives. For example, government decisions have significantly affected the United States automotive industry. The marketing strategist needs to study both domestic and foreign political happenings, reviewing selected published information to keep in touch with political trends and interpret the information as it relates to the particular company (Jain 1993: 143).

The political/legislative domain includes governmental actions at the city, state and national level as well as legislation and executive orders. It also includes

international developments such as the oil crises in the 1970s (Burack & Mathys 1989: 82).

A discussion of the main political trends and their implications for marketing management follows.

4.4.2.1 Substantial amount of legislation regulating business

Legislation affecting business has steadily increased over the years. It is incumbent upon marketers to have a good working knowledge of the major laws protecting competition, consumers and society (Kotler 1994: 166).

4.4.2.2 Growth of public interest groups

The number and power of public-interest groups have increased during the past three decades. New laws and growing numbers of pressure groups have put more restraints on marketers (Kotler 1994: 166).

4.4.3 ECONOMIC ENVIRONMENT

All companies, small or large, engage in strategic planning and examine the economic environment. Relevant published information is usually gathered, analysed and interpreted for use in planning. Usually the economic environment is analysed with reference to the following key economic indicators: employment, consumer price index, housing starts, auto sales, weekly unemployment claims, real Gross National Product, industrial production, personal income, savings rate, capacity utilisation, productivity, money supply, retail sales, inventories and durable goods orders (Jain 1993: 145).

To illustrate the effect of economic climate on strategy, consider the following trends. Older capitalist countries are becoming saturated much faster than new

markets can take their place. Consumer goods, such as cars, radios and television sets, already outnumber households in North America and many in Western Europe. The slow growth of populations in most of these countries means that the number of households is likely to grow at only about two percent per year and that demand for consumer goods is unlikely to grow any faster (Jain 1993: 145).

The organisation must pay close attention to major trends in income and consumer-spending patterns.

4.4.3.1 Income distribution

Nations vary greatly in the level and distribution of income. A major determinant is the nation's industrial structure. Four types of structures can be distinguished: subsistence economy, raw-material exporting economies, industrialising economies and industrial economies (Kotler 1994: 158).

4.4.3.2 Savings, debt and credit availability

Consumer expenditures are affected by consumer savings, debt and credit availability. Organisations must pay careful attention to any major changes in income, cost of living, interest rates, savings and borrowing patterns because they can have a high impact, especially on companies with high income and price sensitivity (Kotler 1994: 159).

4.4.4 SOCIAL ENVIRONMENT

The ultimate test of a business is its social relevance. This is particularly true in a society where survival needs are already being met. It therefore behooves the strategic planner to be familiar with emerging trends and concerns. The

relevance of the social environment to a particular business will of course vary depending on the nature of the business.

Social developments include dual-career couples, quality of work life and growing interest in work as a source of career gratification. Kotler (1994: 154) calls the social environment the demographic environment.

Values mainly revolve around a number of fundamental concerns regarding orientation towards time, quality, health, environment, home, personal finance, and diversity of lifestyles.

Orientation toward time: Convenience became a critical source of differential advantage, particularly in foods and services. McDonalds might be the best example in this regard.

Quality: Consumers have developed a new set of expectations regarding quality, hence they assign high priorities to those offerings that provide optimal price/quality.

Health: A large and growing segment of the American population has become increasingly preoccupied with health. Health concerns are a function of both an aging population and changing predispositions.

Environment: Many people now consider themselves “environmentalists” and this decade might become the “earth decade”.

Home: In a more domesticated society, the many technological innovations will make staying at home more fun.

Personal finance: Most experts on consumer behaviour expect that in the decade ahead, people will be more frugal.

Diversity of lifestyles: The predominance of diverse lifestyles is reflected by the significant increase in the number and the stature of women in the labour market (Jain 1993: 148).

4.4.5 REGULATORY ENVIRONMENT

Even in a capitalist society like the United States, government influence on business appears to be increasing. Government in recent years has changed its emphasis from regulating specific industries to focusing on problem areas of national interest (Jain 1993: 153).

One of the most striking findings of research conducted in the above regard, is the lack of formal information systems on the macro environment. Information on the political and economic sectors is the most incomplete. Organisations do collect substantial amounts of information on the task environment, such as industry trends, as well as competitor, customer and market share data. However, this information is still poorer quality than information regarding the internal environment, which is the best. Internal data are primarily based on financial reporting and capital appropriation systems (Steyn & Puth 2000: 169).

Elements of the external environment of organisations have been classified into two primary sectors based on their proximity to the organisation. The *task* environment is the most proximate environment of the firm and is composed of elements that have a direct influence on the organisation, and in turn are influenced by the activities of the firm. The task environment is typically composed of the customer, competitor and supplier sectors.

The *remote* environment is composed of those sectors of the environment that have indirect influence on the organisation, such as the government, economic conditions, technology and socio-cultural sectors.

Environmental scanning research has examined the level of importance that decision makers ascribe to different sectors of the environment, as based on the amount of resources spent on collecting external strategic information from each sector. The task environment sectors, owing to their proximity to the organisation and greater relevance to strategy analysis have been shown to receive greater scanning attention.

Aguilar (1967) and Kefalas & Schoderbek (1973) found that the market sector, composed of both customer and competitive factors, received the greatest scanning attention.

The purpose of environmental scanning is to enable a firm to improve strategic decision making. As a result, there should be a positive relationship between scanning frequency and organisational performance. Daft et al. (1988) found differences in the scanning behaviour of executives in higher versus lower performing firms. The decision makers in higher performing firms are characterised by a greater scanning frequency and a broader scanning base than their counterparts in lower performing firms.

Managers and organisations acquire information for two reasons. In the "reactive" mode (El Sawy & Pauchant 1988: 455) information is acquired to solve a specific problem. In the "proactive" mode (El Sawy & Pauchant 1988: 455) also referred to as environmental scanning or surveillance (Aguilar 1967) the purpose of the information acquisition is exploratory, to detect potential problems and opportunities.

In the case of problemistic information search although the information acquired can vary with individual biases, particularly for unstructured decisions, the overall scope of the information search is largely bounded by the problem. In the case of proactive environmental scanning, however, an organisation must choose how

to allocate its scanning resources among the overwhelming number of potential information sources in the environment (El-Sawy & Pauchant 1988:456).

It has been suggested that managers use three strategies to limit the scope of environmental scanning (El-Sawy & Pauchant 1988:456): limiting the consulted information sources to a handful of key sources; limiting the types of signals by just monitoring key trends, and limiting the number of emerging issues being tracked.

According to Choudhury & Sampler (1997: 25) previous research in environmental scanning is largely descriptive and offers little help for organisations and managers trying to decide how much effort to spend on each potential source of information in the environment.

4.6 WHAT SCANNING CAN ACCOMPLISH

Scanning improves an organisation's abilities to deal with a rapidly changing environment in a number of ways:

1. It helps an organisation capitalise on early opportunities rather than lose these to competitors.
2. It provides an early signal of impending problems, which can be defused if recognised well in advance.
3. It sensitises an organisation to the changing needs and wishes of its customers.
4. It provides a base of objective qualitative information about the environment that strategists can utilise.
5. It provides intellectual stimulation to strategists in their decision making.
6. It improves the image of the organisation with its publics by showing that it is sensitive to its environment and responsive to it.

7. It is a means of continuing broad-based education for executives, especially for strategy developers (Jain 1993: 132).

To be successful, an organisation's environmental scanning process must be able to identify and differentiate among a variety of external issues if the company's strategic responses are to be focused and effective; and predict in which direction the environment may be moving (i.e. identify trends) (Maier: 1992: 68).

The importance of an effective, successful environmental scanning process is best expressed by Jain (1990: 137). According to him, to survive and prosper in the midst of a changing environment, a company must stay at the forefront of changes affecting their industries. To do this, a company must do three things. Firstly, it must recognise that all products and processes have a limited existence. Secondly, it must take all competition seriously. Thirdly, if the environmental change has the potential for creating a competitive advantage for organisations within the industry, an organisation must exploit the technology to improve or even maintain its current competitive position.

Used here, "exploit" means gaining access to the new technology, training people in its use, and investing in the capacity to use it. Each of these three "musts" links directly to environmental scanning. For example, recognising and accepting that products and processes have a limited existence should serve as a forceful motivator for scanning the environment to find replacements that support strategy and enhance competitive position (Jain 1990: 137).

Taking all competition seriously dictates that a knowledge of each competitor be developed. Since it is highly unlikely that competitors would voluntarily and willingly disclose their position, this knowledge can be gained only by scanning the external environment to learn of the competition's activities (Maier 1992: 69).

4.7 ALLOCATING ENVIRONMENTAL SCANNING RESOURCES

Given the almost infinite number of potential sources of information in the environment, organisations must decide how they are going to allocate their limited scanning resources. Surveillance strategies may range from the continuous monitoring associated with a process control system, to weekly visits to selected customers, to monthly meetings with key employees (Choudhury & Sampler 1997: 25).

Or a firm may adopt a research strategy, where a source is never monitored proactively, only reactively in response to a specific need for information. The key decision, therefore, is the frequency with which an organisation chooses to monitor proactively each potential source of environmental information.

In previous research on environmental scanning, the typical approach has been to divide the environment into multiple sectors and ask executives how much of their time they spend monitoring each sector. For instance, Kefalas & Schoderbek (1973: 63) include five sectors: market sector, technology sector, external growth sector, government sector and other sectors.

Most previous studies have reported that executives spend the majority of their time scanning the market sector. No clear explanation is offered for these findings. A possible reason may be that the market sector is the one likely to yield the most highly time-specific information.

4.8 ALLOCATING RESPONSIBILITY FOR ENVIRONMENTAL SCANNING

Despite its critical, costly nature, available evidence suggests that environmental scanning is not necessarily a formal task assigned specifically to certain executives. According to Hambrick (1981: 299) scanning is conducted on largely an ad hoc basis by all middle- and top executives in organisations.

Available evidence suggests that there may not be a strong relationship between hierarchical level and scanning activities. For example, researchers generally have observed no greater overall scanning activity by top-level executives than by middle-level executives as the primary links to the environment has not been supported (Hambrick 1981: 300).

As noted, organisations must make two choices in this regard: when to outsource the task of acquiring environmental information and when to retain the responsibility internally, and in the latter case, where in the organisation to locate the responsibility for acquiring the information. Production costs or transactional costs are relevant here (Choudhury & Sampler 1997: 25).

Early researchers viewed environmental scanning primarily as an informal, unstructured activity with individual managers acquiring information in the course of their daily activities. Later research has suggested, however, that for large corporations, scanning is often formally organised and coordinated (Choudhury & Sampler 1997: 25).

The purpose and roles of scanning are important side issues in the discussion on which unit should conduct the scanning. The following distinctions can be made:

- When the scanning is *policy-oriented*, the unit is situated at corporate level with direct access to top management. The focus is on early detection of broad strategic issues in the macro environment that are likely to result in public policy impact on the organisation as a whole.

- When the scanning has integration of *strategy formulation and strategic planning* as its aim, the unit may be at either corporate level or reporting to planning staff. This is a specific role in the strategy formulation process, usually including the preparation of environmental forecasts at the beginning of the strategy formulation cycle, as well as more detailed information later. Analysis is at both macro and task environmental levels (Engledow & Lenz 1985: 93).

- When the scanning is *function-oriented*, the unit is attached to a particular function at either corporate or business level, and linked to the planning process via the function's usual reporting paths (Engledow & Lenz 1985: 93).

Environmental scanning can also be viewed from the perspective of how it varies from level to level.

- Corporate scanning broadly examines trends or issues in the macro environment, focusing on those with corporate-wide implications
- Emphasis at the business level is placed on those changes that may influence the future direction of the organisation
- At the operational level, scanning is limited to day-to-day aspects (Jain 1993).

A company can now purchase an array of competitor analysis services, thus an organisation must decide when to retain the responsibility for scanning in-house and when to outsource it. Secondly, many organisations have a central environmental scanning unit consisting of professional boundary spanners. Thus, for those sources it monitors internally, an organisation must decide which ones will be assigned to a central unit and which ones will be the responsibility of the line units (Choudhury & Sampler 1997: 25).

Previous research offers little guidance to managers and organisations on making these choices.

The value of information is based largely on its ability to affect decisions, although in the case of proactive scanning the problem has not been identified yet. Knowledge and time are both important influences on the way information is acquired and used in the context of decision making (Choudhury & Sampler 1997: 25).

Corporations organise scanning activity in three different ways: (a) line managers undertake environmental scanning in addition to their other work, (b) scanning is made a part of the strategic planner's job, (c) scanning responsibility is instituted in a new office of environmental scanning (Jain 1993: 161).

Most companies use a combination of the first two types of arrangements. The strategic planner may scan the corporate wide environment while line managers concentrate on the product/market environment. In some companies, a new office of environmental scanning has been established with a responsibility for all types of scanning. The scanning office undertakes scanning both regularly and on an ad hoc basis (Jain 1993: 162).

Advocates of environmental scanning have often recommended that a corporate-level environmental scanning unit be established. The personnel in this unit are to be charged with the responsibility to monitor and interpret trends in demographic, social, cultural, political-regulatory, technological and other patterns (Stubbart 1982: 139).

The purposes that informal environmental scanning units are meant to serve, are important. The most significant purpose is to arm decision makers with accurate forecasts of significant trends in competition, regulation and politics, technology and culture, energy, demographic and population factors. This information differs

from industry or competitive analysis in two important respects; it is broad in scope and it is future-directed (Stubbart 1982: 139.)

A second vital task for the environmental scanning unit is to provide assumptions for the long-range planning system (Stubbart 1982: 139).

Whoever is assigned to scan the environment should undertake the following six tasks:

1. Trend monitoring – systematically and continuously monitoring trends in the external environments of the company and studying the impact upon the firm and its various constituencies.
2. Forecast preparation – periodically developing alternative scenarios, forecasts, and other analyses that serve as inputs to various types of planning and issue management functions in the organisation.
3. Internal consulting – providing a consulting resource on long-term environmental matters and conducting special futures research studies as needed to support decision-making and planning activities.
4. Information centre – providing a centre to which intelligence and forecasts about the external environment from all over the organisation can be sent for interpretation, analysis and storage on long-range environmental matters.
5. Communications – communicating information on the external environment to interested decision makers through a variety of media, including newsletters, reports etc.
6. Process improvement – continually improving the process of environmental analysis by developing new tools and techniques, designing forecasting systems, applying methodologies developed elsewhere, and engaging in a continuing process of self-evaluation and self-correction (Jain 1993: 163).

Successful implementation of these tasks should provide increased awareness and understanding of long-term environments and improve the strategic planning capabilities of the firm. More specifically, environmental inputs are helpful in product design, formulation of marketing strategies etc (Jain 1993: 163).

Within an organisation, the responsibility for acquiring information may remain with the user (decision maker), or it may be delegated, either to a subordinate in the same organisational unit, or to a central environmental scanning unit. The advantage of delegation is a reduction in the surveillance costs, both to the individual user, and to the organisation as well.

In some organisations some scanning is conducted on a formal basis through planning offices, market research staff and so on. However, the weight of evidence indicates that the call for such formality drastically exceeds its existence.

If we accept that scanning generally is conducted informally, then the question of who actually assumes scanning responsibilities in organisations is of legitimate concern.

Sources of strategic information have generally been classified into two broad categories, external and internal, and further subdivided into personal and impersonal (Aguilar 1967). External sources of information are those originating outside the organisation while internal sources originate from within the organisation.

Personal sources of information originate from personal contacts with people inside and outside the organisation while impersonal sources originate from non-personal sources such as documents et cetera (Aguilar 1967). There appears to be a general agreement in the literature on the importance of personal and impersonal sources in obtaining strategic information (Aguilar 1967).

According to Boyers (1997: 27), the primary objective of engaging in environmental scanning is that it can improve the overall perspective of leaders so that they can make today's decisions better. Because of the rapid pace of change present in today's business environment, scanning can build a better framework for conducting the strategic thinking of your organisation.

Environmental scanning is explicitly recognised as a starting point and a vital phase in the strategic management process. It is also considered the principal vehicle that puts into motion the organisational adaptation process (Daft & Weick 1884: 284).

According to Miller & Toulouse (1986: 231), scanning refers to the scope and intensity of the environmental monitoring activities conducted by a firm and its managers. It ranges from informal efforts at gathering opinions from clients, to explicitly tracking the practices of competitors, to conducting special market research studies and forecasts.

Scanning typically entails looking at trade or professional journals, mainstream newspapers, books, and magazines, and of course the Internet – to identify specific issues, trends, and external factors that might impact your business and about which you want to know more.

The pace of change in the external environment has moved scanning from an element of good citizenship to a professional requirement – from a low level personal interest satisfied by passive scanning to a high-level professional responsibility requiring active scanning (Morrison & Renfro 1984: 49).

In general, scanning involves bringing together a group of people from within or across organisations to serve as the core. Active scanning would involve developing a list of newspapers, journals, reports, broadcast media, and so on

that the group would divide up and regularly review. Reports are prepared by committee members on any trends of relevance to the institution. Quarterly meetings would involve discussion of the reports and evaluation of those trends with the most significant potential impacts.

4.9 ENVIRONMENTAL SCANNING AND EVALUATION RESEARCH

Researchers distinguish between environmental scanning and evaluation research as was pointed out in Chapter Three. A key distinction first must be drawn between research conducted to detect problems and assess the status quo, on the one hand, and research designed to evaluate the planning, implementation, and impact of public relations programmes on the other.

The first kind of public relations research, called *environmental monitoring* or *environmental scanning*, is part of the problem defining stage of public relations planning (Dozier 1986). Broom and Dozier (1990) said that environmental scanning moves through the three phases of problem detection, exploration and description.

The second kind of research, evaluation research is designed to determine how well public relations programmes work. This kind of research picks up the research function when scanning is complete, using problem description from the scanning phase as baseline for programmes evaluation (Dozier 1986).

Most organisations try to rely on their management information systems (MIS) to obtain strategic information. Management Information Systems are mostly exclusively concerned with the past, with the control function applied to the operational activities of the organisation. They do not necessarily focus on providing information relevant to strategy formulation, the latter involving strategic decisions critical to the organisation's future (Steyn & Puth 2000: 35).

The information top management need for strategy formulation should be separately collected and processed, and should follow separate pathways from information required for operations. What is required is a strategic information system (SIS), designed to support the organisation's competitive strategies. The SIS should provide for "scanning" the business and stakeholder environment to pick up new signals, and for "monitoring" to track previously identified trends singled out as important to the organisation (Steyn & Puth 2000: 35).

Environmental scanning – also known as environmental analysis, environmental monitoring or issues analysis is conceptually different from evaluation research. It entails monitoring the organisation's environment to analyse and evaluate opportunities and threats as they arise out of the interaction and relationships with other organisations, social groupings or individuals (stakeholders or publics or activists).

This is the kind of research that helps to determine "**what the problem is**" it is fact finding par excellence, showing a sensitivity to "**what is going on out there"** by identifying new trends and issues crucial to the organisation's strategic planning process (Steyn 1998: 22).

One reason why boundary-spanning practitioners are not included in decision making is related to the manager-technician distinction. *Environmental scanning,* especially informal environmental scanning can be viewed as a largely technical activity.

A public relations practitioner might define environmental scanning as reading the popular and industry press and clipping articles about the organisation and issues important to the organisation. This technical approach to scanning-as-clipping typically is subcontracted to clipping services (Dozier & White 1992: 101).

Such technical monitoring of the media is only a first step, however, in the management function of environmental scanning. The communication boundaries that help define the organisation's boundaries are created by the interaction of idiosyncratic language/coding schemes and by the development of local conceptual frameworks (Dozier & White 1992: 101).

Environmental scanning and programme research is relatively innovative practices in public relations. Yet the role of information gatherer and processor is key to the communication manager's participation in management decision making. Many practitioners are not included in management decision making, in part because they play the technical role predominantly and because they do not engage in environmental scanning (Dozier & White 1992: 103).

Environmental scanning consists of both formal (scientific) and informal information gathering about changes and trends in the organisation's environment. Practitioners use qualitative and quantitative research techniques – as well as informal, journalistic information gathering – to make their participation valuable to organisational decision makers. By collecting and controlling intelligence about the environment, practitioners become useful participants in strategic planning and decision making. This is one source of power that practitioners can use to redefine the public relations function and alter its vertical and horisontal structure (Dozier; Grunig & Grunig 1995: 412).

Research on organisational adaptation continues to grow. The general thrust of conceptual and empirical work during the last two decades is that successful organisations tailor their strategies and structures to fit environmental conditions.

Organisational environments have been characterised in terms of their components, which include customers, competitors, and suppliers and their attributes, such as instability, munificence, complexity, and also in terms of

industry characteristics, such as concentration of market power, entry barriers, changes in demand and changes in product characteristics (Sutcliffe 1994:1).

4.10 IRREGULAR, PERIODIC AND CONTINUOUS SYSTEMS

Organisational scanning refers to the acquisition of information about an environment by organisation members and the subsequent communication of relevant information. Fahey & King (1977) characterised scanning systems as either **irregular, periodic, or continuous**, categories reflecting the increasing formalisation, intensity and complexity of a system. Fundamental to these perspectives is the idea that more intense and frequent scanning, enhances the recognition of environmental changes, threats, and opportunities (Sutcliffe 1994: 2).

4.10.1 Irregular systems

Irregular systems are characterised by the reactive nature of planning as well as environmental scanning. These systems respond to environmentally generated crises. Such systems are not really systematic. Their focus is on specific problems that tend to be short term in nature. Methodologically these systems rely on simplistic tools that primarily utilise information from the past.

According to Steyn & Puth (2000: 172) irregular scanning is a general exposure to information with no specific purpose in mind. It is characterised as reactive, specific, driven by crises, and performed by existing staff.

The organisations that use these systems generally have not created a "strategic planning culture". More importantly, however these systems attempt to reduce uncertainty in the current and near-term future environment and in doing so, they generally fail to detect opportunities to facilitate the creation of radically new solutions to problems (Fahey, King & Narayanan 1981: 33).

4.10.2 Periodic systems

Periodic systems, on the other hand, are more sophisticated and complex. While the focus of these systems is still problem solving, they exhibit greater proactive characteristics. These systems look more toward the future, but they emphasise short-term environmental changes. As a result, while they are forecasting oriented, the forecasts that they produce are limited in their scope and methodologies (Fahey, King & Narayanan 1981: 33).

4.10.3 Continuous systems

Continuous systems are the ideal portrayed in planning literature. Here the focus shifts from mere problem-solving to opportunity-finding and the realisation that planning systems contribute to the growth and survival of the organisations in a pro-active way. These systems attempt to enhance the organisation's capability to handle environmental uncertainty rather than to reduce perceived uncertainty. The time horisons which are treated are considerably longer –varying from "long" to "futuristic" – and there is a substantial continuing resource allocation to these activities in the organisation (Fahey, King & Narayanan 1981: 33).

Continuous scanning is a deliberate effort to obtain specific information that follows pre-established methods. It is characterised as proactive, broad in scope, part of the organisation's strategy formulation and planning processes, and performed by a scanning unit (Steyn & Puth 2000: 172).

Sutcliffe (1994) further found that the greater the organisational scanning, the greater the match between environmental instability and manager's perceptions of environmental instability.

Environmental scanning can, for instance, be used for labour supply planning. In this case, the scanning activities will include direct managerial input, best guess, historical ratios, process analysis, scenario analysis and other statistical methods (Ward 1996: 54).

4.11 RESEARCH ON ENVIRONMENTAL SCANNING

Initial studies focused on formal systems for environmental scanning, describing their features and prevalence. Larger organisations were found to be more likely to engage in a formal practice of environmental scanning (Steyn & Puth 2000: 173).

4.11.1 THEORETICAL STUDIES ON ENVIRONMENTAL SCANNING AND STRATEGIC BEHAVIOUR

In the late 1970s the notion held that chief executive officers create their environments through their belief about what is relevant and what should be scanned (Weick 1976).

In the 1980s a theoretical perspective emerged to claim that organisations generally follow different strategies because they require different skills, values and knowledge on the part of the chief executive officer.

Researchers such as Miller & Toulouse (1986), demonstrated that managers employing a differentiation strategy have attributes that are different from their counterparts using cost-leadership. For instance, managers employing differentiation strategy appeared to have greater willingness to take risks, greater

tolerance for ambiguity. They were also more internal in their locus of control than those practising cost-leadership. Thus, researchers conclude that types of strategies and approaches to scanning are linked, because different strategies require different scanning approaches. Managers with certain scanning skills may choose strategies that maximise their skills.

4.11.2 EMPIRICAL STUDIES ON ENVIRONMENTAL SCANNING AND ORGANISATIONS' STRATEGIES

Since Aguilar's (1967) conceptualisation of the scanning process, several studies have investigated various aspects of it. Most of these have focused on how the scanning process is performed. Building on Aguilar, Nanus (1982) also provided a conceptual collaborative approach based on the analysis of industrial trends.

Other studies focused on the relationship between environmental scanning and certain variables of the organisation's strategy such as hierarchical level; speciality level and personality dimensions of executives. Others focused on environmental complexity and rate of change as well as evaluation of information sources and information processing.

Hambrick's (1981) pioneer study empirically examined this relationship on the premise that chief executive officers would scan their organisational environment to build a competitive strategy. Using Miles and Snow's (1978) strategy typologies, Hambrick found no relationship between the environmental scanning activities of chief executive officers and their organisational strategies.

Later studies focused on the informal scanning behaviours of individual managers. People possess a strong motivation to understand their environments, but limitations on their cognitive abilities create biases as they acquire and process information. Managers tend to focus on their own short-

term interests and fail to share information with other managers (Steyn & Puth 2000: 173).

Inadequate scanning of environmental changes might be an important reason for the failure of strategic planning in some organisations. In an analysis of 31 South African organisations, it was found that 28 undertook environmental scanning on an irregular basis and were dependent on published and "informally" collected information. Only two organisations published their analyses and presented them as a starting point for the planning cycle (Steyn & Puth 2000: 169).

Little is known about the relationship between the way an organisation collects environmental information and its strategies to compete. In other words, the relationship between an organisation's strategic orientation and the kinds of environmental information it obtains to make its strategies successful is a largely unexplored territory. Assessment of the environment is generally accepted to be the first step in the strategic management process. A link between strategy and scanning, thus, will help "match" this vital activity with its purpose.

4.11.3 FIRST STREAM OF RESEARCH: THE MACRO OR INDUSTRIAL VIEW

Earlier research on environmental scanning focussed on which organisational units and systems gathered environmental information, and how it is used.

4.11.3.1 How scanning is used

Management need to study and understand the environment in order to think strategically. It is imperative to include environmental analysis in the strategy formulation processes, in order to ensure that important external changes and information are included in the organisation's strategic decisions (Fahey, King & Narayanan 1981).

Fahey and King (1977) studied environmental scanning in 12 large organisations. They undertook this research because of a paucity of empirical studies of environmental scanning as a formal activity in organisations. They addressed a variety of questions, hoping to obtain a broad understanding of the motivation, information types and sources, organisational aspects and usefulness of environmental scanning in these organisations.

Analysis of the data revealed:

1. Environmental information was not properly integrated into the planning process.

2. While many respondents asserted that the Political/Regulatory environment was of great importance, efforts to gather useful information of this kind were insufficient, non-existent, or unconnected to long-range planning.

3. The most widespread approach to scanning is the use of corporate staff in conjunction with outside experts.

4. Most scanning activities were said to be best undertaken at the divisional, not the corporate level.

5. Most of the firms in the sample relied on the irregular method, in spite of being aware of the dangers of the method (Fahey & King 1977).

The primary purpose of environmental scanning is to provide an understanding of the constituents of the macro environment. The information gathered by the macro environmental scanning process is broad in scope and future directed. The forces and trends in this category represent the most difficulty for scanners when they try to identify threats and opportunities, for they are the most abstract

and the timing of their development is most difficult to estimate (Steyn & Puth 2000: 174).

4.11.3.2 Which systems are used in structuring environmental scanning?

According to Jain (1984), in studying the actual scanning practices of managers, a pattern was found in the evolution of scanning activity, marked by four phases: primitive, ad hoc, reactive and proactive. As scanning progresses from one phase to the next, the process of information gathering improves as it is related to strategy formulation.

Another finding was that the quality of scanning improves with time. This implies that the scanning activity cannot be transplanted by copying a model from another organisation, but has to be adapted and evolved over time. A prerequisite for achieving a structured system of environmental scanning is the existence of a formalised system of strategy formulation and planning itself. Simply scanning the environment will not provide much mileage unless strategy formulation and planning have been well organised (Jain 1984).

A systematic approach to environmental scanning is therefore needed. The enterprise and corporate strategy must continually be reviewed to incorporate the impact of environmental trends of strategic significance.

According to Hambrick (1981: 299) available evidence suggests that there may not be a strong relationship between hierarchical level and scanning activities. For example, researchers generally have observed no greater overall scanning activity by top-level executives than by middle-level executives. Thus, the traditional conception of top executives as the primary links to the environment has not been supported. Neither Aguilar (1967) nor Kefalas and Schoderbeck

(1973) could identify any clear patterns between hierarchical level and scanning focus among the executives they studied.

4.11.3.3 Principles for effective implementation of environmental scanning

Environmental scanning seems to be even more complex and harder to carry out than originally envisioned. The following are principles regarding effective implementation (Engledow & Lenz 1985: 95).

- Environmental scanning must be linked, conceptually and practically, to current strategy formulation, planning and operations.
- Systems for environmental analysis must fit the culture and decision-making styles of the organisation.
- Continuing support from internal champions, such as the chief executive officers or others, is required to sustain the scanning over time. Environmental analysis is a relatively new, poorly defined activity that does not have a historical role in the strategy formulation process, and is always in danger of being smothered.
- The scanning domain must be defined as broadly as possible.
- Standards for the definition of events and trends must be set.
- As many internal and external sources as possible must be used.
- A strict schedule for review and analysis must be established.
- Identified threats and/or opportunities must be reviewed with regard to their impact on the organisation.

An interesting finding of the above research study was a complete lack of attention to defining the environment that had to be scanned, although that was actually the task at hand. There was no consensus in the research on how to approach the problem of describing the organisation's environment and delimiting the domain for search. It is clear that there is a need for direct

attention to the question of how to conceptualise an organisation's environment (Engledow & Lenz 1985: 96).

4.11.4 SECOND STREAM OF RESEARCH: THE MICRO LEVEL

More recent research, produced in the nineties, focuses on individual perceptions of the environment, i.e. how individual managers get information about their environment. When organisations make decisions, they do so based on a set of shared perceptions of the organisation and its environment (Steyn & Puth 2000: 178).

4.11.4.1 Information gathering activities

Top management learns about the environment by means of environmental scanning. There are numerous studies that centre on their information-gathering activities, also referred to as boundary-spanning activities.

Whereas chief executive officers are considered to be responsible for organisational and/or environmental alignment, they do not do all the scanning. However, they are responsible for bringing specialised information together from various sources. It is their job to interpret the environment, to make sense of all the information, to be aware of external events, and to create meaning from this. They must define the environment for other organisational members (Steyn & Puth 2000: 178).

Senior managers have limited time and capacity, and they must choose among scanning alternatives. A complex environment would seem to call for the increased use of sophisticated scanning systems, yet most information at top levels is gained through *ad hoc,* human sources. Knowledge of long-term trends possibly affecting the whole organisation is usually lacking. Furthermore, top

management scanning tends to be irregular rather than systematic (Steyn & Puth 2000: 179).

Upper-level executives do not display a consistent, concentrated tendency to scan according to their organisations' strategies, neither is their scanning target-oriented. Rather, it is largely individual and directed to person-specific interests with a general tendency to scan according to own functional interests. In analysing the sources of information that exists within the organisation (newspapers, magazines, periodicals, business press, newsletters, patent filings, reports of fairs, conferences), it was found that in general, only short-term and topical developments in sectors of special interest to a single person are being monitored. Research suggests that although environmental analyses may have objective aims, the interpretation of these analyses is influenced by the individual judgements and perceptions of the managers involved (Steyn & Puth 2000: 179).

4.11.4.2 Personal information-gathering attributes

There are two separate approaches to understanding the information-processing capability of individuals: personal or contextual attributes.

4.11.4.2 (a) Personal attributes approach

This approach assists in identifying personal characteristics that can be used to predict individuals' information-processing capability:

- *Cognitive complex* top managers are likely to attend to and search for a broader range of information from various environmental segments and are able to analyse the implications of complicated information better.
- *Familiarity with* the information received, influences their ability to recognise the relevance and importance of this information. Managers with an interdisciplinary background are therefore ideal candidates for performing

scanning and interpretation tasks in a turbulent environment where the scope of the relevant information is broad.

- *Mental model of success (frame of reference):* People become so used to that way in which success is achieved, that they fail to notice (or choose to ignore) important changes taking place. Long-standing strategies are maintained because of subservience to traditionally important managers, customers and suppliers. Meanwhile the really influential critical contingencies are changing. Thus, organisation members pretend that reality is "safe", while in effect the environmental reality is becoming increasingly dangerous (Puth & Steyn 2000: 180).

4.11.4.2 (b) Contextual attributes approach

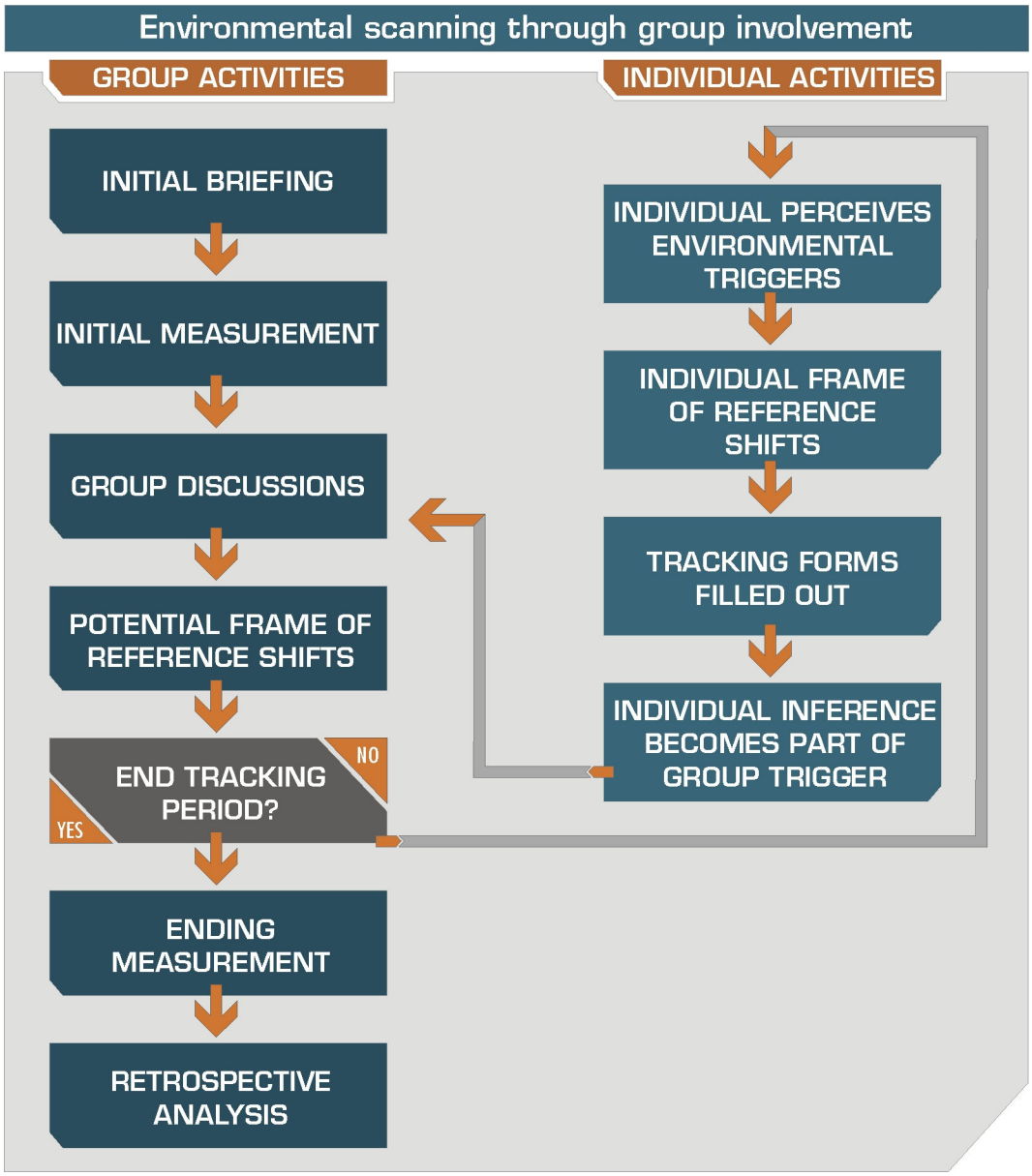
The above approach does not explain why individuals with similar personal characteristics exhibit different information-processing behaviours when functioning in different organisations. The contextual attributes approach, in contrast, contributes to the understanding of the types of situational attributes that may either facilitate or damage the information-processing behaviours of managers (Steyn & Puth 2000: 180).

4.12 MODELS OF ENVIRONMENTAL SCANNING

Some researchers went beyond scanning, and developed models that included analysis.

El Sawy & Pauchant (1988: 455) developed a model for environmental scanning by using the group involvement process, as can be seen below.

Figure 4.3 Environmental scanning through group involvement



Source: El Sawy & Pauchant (1988)

Ansoff (1975) designed a model for detecting and responding to “weak signals” in the environment, thus managing to cope with surprises.

Bates (1985) found a gap in existing models: understanding the present environment and its effects on the organisation is not enough. His MAPping model introduced the stage of prediction to bridge the gap between the understanding of the present environment and developing strategy for the future.

4.12.1 QUEST

Nanus (1982: 39) developed an approach called QUEST – Quick Environmental Scanning Technique. QUEST may be defined as a futures research process designed to permit executives and planners in an organisation to share their views about trends and events in future external environments that have critical implications for the organisation's strategies and policies. It is a systematic, intensive and relatively inexpensive way to develop a shared understanding of high priority issues and to focus management's attention quickly on strategic areas for which more detailed planning and analysis would be beneficial (Nanus 1982: 39).

QUEST was developed by Nanus and Enzer in the early 1980s and has been used successfully in numerous corporations, educational institutions and government departments. It is a futures research technique designed to permit executives and planners in an organisation to work together in examining external future trends and events that have critical implications for the organisation's internal strategies and policies (Du Toit 1991: 154).

The basic assumption of the QUEST technique is that each member of the top management team of a corporation already has a view of the dynamics of the changing environment of the organisation. In the aggregate, these assumptions represent the organisation's understanding of its environment.

Although extremely important for strategic planning, this understanding is rarely articulated and shared. In some cases, these collective views of the environment

may be fairly accurate since each manager is in touch with a variety of constituencies and bring years of experience to bear upon the interpretation of the significance of external events for the organisation. However, this may not necessarily be the case, as conventional wisdom may limit perceptions of change. Thus, it becomes important to spell out assumptions about the environment in a systematic framework so that they can be aggregated, examined and put up to use for strategic purposes (Nanus 1982: 40).

To collect these views, it is useful to engage in a process of divergent thinking in which the full dimensions of the environment are explored by the executives in a structured inquiry. Then, after analysis of the results of the divergent thinking, it is possible to converge on issues and strategic options that are worthy of further exploration. In broad outline, the QUEST process accomplishes these tasks by means of four phases.

4.12.1.1 Preparation

In this phase, a group of 12 to 15 executives is chosen for participation in an intensive 1-day exercise. A notebook is prepared containing information on the major environmental trends and events in the industry. This information is drawn from readily available trade associations, governmental, and other standard sources.

4.12.1.2 Divergent planning session

At the 1-day retreat, the participants proceed through a carefully structured series of discussions. Starting with a definition of the business, its performance indicators and major constituencies, the discussion proceeds to critical events and trends. The day is spent in wideranging speculation on important issues that might affect the future of the firm. An attempt is made to scan the horison broadly and comprehensively.

4.12.1.3 Scenario Development

Based upon the data gathered at the retreat, the QUEST director, who may be a outside consultant or resident analyst, prepares a report summarising the major issues and their implications. The report also synthesises three to five scenarios incorporating the major themes of discussion. The report is distributed to the participants prior to a second half-day meeting.

4.12.1.4 Strategic Options Identification

At the half-day meeting, the report is reviewed, strengths and weaknesses of the firm are discussed, and then the group identifies feasible strategic options to deal with the evolving external environments. The last step is the rank ordering of the strategic options, and the formation of planning teams to further develop each of the high priority strategies (Nanus 1982: 41).

To stay in equilibrium with the changing environment requires changes in management. This calls for a greater environmental awareness by management, changes in management approaches and the application of new management techniques to cope with the new century.

The major advantage of the QUEST process is its low cost, rapid implementation and ability to focus the considerable expertise of top management on the external environment of the organisation. Managers who participate often develop a new sense of commitment to their organisation's strategic planning activities and report a clarification of their own thinking about the future (Du Toit 1991: 159).

The most important result of a QUEST exercise is a new sense of shared understanding of the possible directions of the firm's environments. Participants often remark upon how the exercise clarified their own thinking about the future.

In no sense does a QUEST exercise substitute for a more complete, objective and detailed analysis of the external environment which should accompany major resource allocation decisions. The results will only be as good as the participants themselves.

4.13 SCANNING FOR FORECASTING

Environmental scanning also creates the foundation for forecasts. Information obtained during scanning is used to form scenarios, which are predictions of future outcomes. Two popular future outcomes for which management is likely to seek forecasts are future revenues and new technological breakthroughs (Steyn & Puth 2000: 172).

A variety of techniques – trend impact analysis, cross-impact analysis, cross-impact simulation, Delphi technique, scenario building, econometric models and other simulation models - have been adapted for use in environmental scanning. According to Steyn & Puth (2000: 172), the Delphi technique - a systematic solicitation of expert opinion - was found to be the most popular.

The process of environmental scanning, where strategic intelligence is gathered from the internal and external environment, is of particular importance as a research method for public relations managers. This includes techniques such as cyber bridging, media scanning, networking, trend analysis, econometric models, Delphi technique, scenario analysis, brainstorming etc (Stroh & Leonard 2000).

Traditionally, environmental scanning has been implemented mainly with the use of conventional methods including marketing research, economic indicators, demand forecasting, and industry studies. But the use of such conventional techniques for environmental scanning is not without pitfalls. Discussed below

are a variety of techniques that have been adapted for use in environmental scanning.

4.13.1 Extrapolation procedures

These procedures require the use of information from the past to explore the future. Obviously their use assumes that the future is some function of the past. There are a variety of extrapolation procedures that range from a simple estimate of the future (based on past information) to regression analysis (Jain 1993: 167).

4.13.2 Historical analogy

Where past data cannot be used to scan an environmental phenomenon, the phenomenon may be studied by establishing historical parallels with other phenomena. Turning points in the progression of these phenomena become guideposts for predicting the behaviour of the phenomenon under study (Jain 1993: 167).

4.13.3 Intuitive reasoning

This technique bases the future on the "rational feel" of the scanner. Intuitive reasoning requires free thinking unconstrained by past experience and personal biases. This technique, therefore, may provide better results when used by freelance think tanks than when used by managers on the job (Jain 1993: 167).

4.13.4 Scenario building

This technique calls for developing a time-ordered sequence of events bearing a logical cause- and effect relationship to one another. The ultimate forecast is based on multiple contingencies, each with its respective probability of occurrence (Jain 1993: 167).

4.13.5 Cross-Impact matrices

When two different trends in the environment point toward conflicting futures, this technique may be used to study these trends simultaneously for their effect. As the name implies, this technique uses a two-dimensional matrix, arraying one trend along the rows and the other along the columns.

Some of the features of cross-impact analyses that make them attractive for strategic planning are (a) they can accommodate all types of eventualities (social or technological, quantitative or qualitative, and binary events or continuous functions), (b) they rapidly discriminate important from unimportant sequences of developments, and (c) their underlying rationale is fully retraceable from the analysis (Jain 1993: 167).

4.13.6 Morphological analysis

This technique requires identification of all possible ways to achieve an objective. For example, the technique can be employed to anticipate innovations and to develop optimum configurations for a particular mission or task (Jain 1993: 167).

4.13.7 Network Methods

There are two types of network methods: contingency trees and relevance trees. A contingency tree is simply a graphical display of logical relationships among environmental trends that focuses on branch-points where several alternative outcomes are possible. A relevance tree is a logical network similar to a contingency tree but is drawn in a way that assigns a degree of importance to various environmental trends with reference to an outcome (Jain 1993:168).

4.13.8 Missing-link approach

The missing-link approach combines morphological analyses and the network method. Many developments and innovations that appear promising and marketable may be held back because something is missing. Under these circumstances, this technique may be used to scan new trends to see if they provide answers to any missing links (Jain 1993: 168).

4.13.9 Model-building

This technique emphasises the construction of models following deductive or inductive procedures. Two types of models may be constructed: phenomenological models identify trends as a basis for prediction but make no attempt to explain underlying causes. Analytic models seek to identify underlying causes of change so that future developments may be forecast on the basis of a knowledge of their causes (Jain 1993: 168).

4.13.10 Delphi technique

The **delphi technique**, named after Apollo's oracle at Delphi, is a method of making forecasts based on expert opinion. Traditionally, expert opinions were pooled in committee. The delphi technique was developed to overcome the weaknesses of the committee method (Jain 1993: 331).

The delphi technique is the systematic solicitation of expert opinion. Based on reiteration and feedback, this technique gathers opinions of a panel of experts on happenings in the environment (Jain 1993: 168).

4.13.11 Trend-impact analysis

Trend-impact analysis is a technique for projecting future trends from information gathered on past behaviour. The uniqueness of this method, which was designed by the consulting firm, the Futures Group, lies in its combination of statistical method and human judgement (Jain 1993: 338).

4.13.12 Scenario analysis

The environmental scanning process involves monitoring emerging trends, changes and issues and evaluating how they will impact corporate decisions. Scanning also involves dividing the environment into meaningful sectors, collecting data, and forecasting changes in key variables in those sectors (Preble, Rau & Reichel 1988: 4).

4.14 SCANNING FOR BENCHMARKING

Another type of environmental scanning is benchmarking, a search amongst competitors or non-competitors for the best practices that have lead to their superior performance.

Benchmarking focuses scanning by tracking the best business process in the global political economy and in the industry-market and adjusting the internal value chain to them. The basic idea is that management can improve quality by analysing and then copying and improving the methods (Steyn & Puth 2000: 173).

Environmental scanning frequency did not appear to affect organisational performance as measured by profit margin and return on equity. There was a preference for internal over external sources of information, but there was no difference in the use of personal and impersonal sources.

What may be gleamed from the research that has examined environmental scanning? An information-seeking framework summarises important findings. These findings fall into the following categories:

- Situational dimensions
- Organisational strategy and scanning strategy
- Information needs, seeking and use
- Managerial traits.

Situational dimensions: the effect of perceived environmental uncertainty. Managers who perceive the environment to be more uncertain will tend to scan more. According to Choo (1998: 23) several studies have found that perceived environmental uncertainty is a good predictor of the amount and intensity of scanning. Perceived environmental uncertainty is a function of the perceived complexity (number of factors, number of causal relationships) and perceived dynamism (rate of change) of the external environment. Furthermore, if the perceived importance of the environment is included in a measure of perceived strategic uncertainty, the association between environmental uncertainty and scanning is even stronger.

Organisational strategy and scanning strategy: an organisation's overall business strategy is related to the sophistication, scope and intensity of its environmental scanning. An organisation that follows a particular strategy, such as a product differentiation, cost leadership or focus strategy, or adopts a certain strategic stance, is likely to operate a scanning mode that provides the required information and information processing capabilities to pursue its desired strategy (Choo 1998:24).

Information needs, seeking and use: business organisations focus their scanning on market-related sectors of the environment. Information about customers, competitors and suppliers is seen to be the most important. In industries where other sectors of the environment, such as technology or

demographics, are perceived to be having a large impact, these sectors would also be considered high scanning priorities (Choo 1998: 24).

Although managers scan with a wide range of sources, they prefer live information from personal sources when seeking information about market-related environmental sectors that are highly fluid and equivocal. There is some evidence to indicate that source selection for scanning is influenced by the perceived quality of the source and not just its perceived accessibility (Choo 1998: 23).

Information derived from environmental scanning is increasingly being used to drive the strategic planning process in business and public-sector organisation. Research suggests that environmental scanning is linked with improved organisation performance. However, the practice of scanning by itself is insufficient to assure performance – scanning must be integrated with strategy and scanning information must be effectively employed in the planning process. An important effect of scanning is to increase and enhance communication and discussion about future oriented issues by people in the organisation. Coupled with the availability of information on external change, scanning can promote generative organisational learning (Choo 1998: 23).

Managerial traits: the effect of a manager's job-related and cognitive traits on scanning is an area in need of further research. There is evidence to suggest that managers scan widely, covering not just their functional specialities but also other areas, and that upper-level managers scan more and more broadly than lower-level managers do (Choo 1998: 24).

Little is known about the relationship between the way an organisation collects environmental information (environmental scanning) and its strategies to compete. In other words, the relationship between an organisation's strategic orientation and the kinds of environmental information it obtains to make it's

strategies successful is a largely unexplored territory (Fernandes, Harper & Subramanian 1993: 315).

Ever since Aguilar (1967) established the importance of environmental scanning, a number of studies have been done in this area. The general trend of these studies has been to suggest theoretical models of scanning as well as to provide periodic perspectives on the state-of-the-art in scanning practices.

Fahey & King (1977) assessed the existing practices in corporate environmental scanning. Using a small sample of twelve US firms, the authors classified the scanning models in use along a continuum into three types: irregular, regular and continuous (this is discussed earlier in this chapter). Only two of the twelve firms studied had scanning systems that could be termed "continuous," while six firms had only rudimentary scanning systems that could be called "irregular".

Jain's (1984) study of corporate environmental scanning practices was conducted on a much larger sample than those of Fahey & King (1977). Questionnaire data from 186 Fortune 500 firms provided support for Fahey & King's (1977) contention that most US corporations do not use advanced models for environmental scanning. Jain (1984) also classified scanning models on a continuum, but used terminology that was different from Fahey & King (1977).

Jain's models progress in phases: phase one is the primitive model, phase two the ad hoc model, phase three the reactive and phase four the proactive model. Only 14 of the 186 companies (7.5 percent) that Jain (1984) surveyed, had a proactive scanning system in use. One hundred and twenty eight firms in the sample (nearly 70 percent) used either the primitive or the ad hoc models.

Aguilar (1967) and Kefalas and Schoderbek (1973) examined the relationship between environmental scanning and certain organisational factors such as size,

hierarchical levels, and functional area orientation of managers. Neither study yielded significant linkages.

Daft, Parks & Sormunen (1988) compared the scanning practices of chief executives in high-performing and low-performing organisations. Using return on Assets (ROA) as the performance measure, the researchers concluded that chief executives of high-performing organisations scanned the environment more frequently and more broadly than their counterparts in low-performing organisations.

An empirical study of four Canadian industries conducted by Miller & Toulouse (1998: 230) revealed that environmental uncertainty and environmental scanning are both negatively related to simplicity. This supports a functional rationale that more comprehensive strategies are demanded by uncertain environments and that scanning helps managers design such strategies.

It also supports a cognitive rationale that uncertainty and scanning help combat tunnel vision and broaden managerial mental models. However, uncertainty and scanning were also found to interact negatively in their impact on simplicity. Paradoxically, scanning is especially likely to reduce simplicity if the environment is stable, and uncertainty is especially likely to reduce simplicity in the absence of scanning. This finding is difficult to interpret using a functional rationale (Miller & Toulouse 1998: 231).

Functional effects of scanning on simplicity. Companies that broadly scan and assiduously monitor the incidents and trends in their environments will be most likely to devise strategies that reflect important external developments. According to Aguilar (1967) and Miller (1993), they will discover more real challenges and opportunities and thus be able to develop a relevant and comprehensive set of competitive methods and competencies.

Cognitive effects of scanning on simplicity. Companies that do not gather much information from their environment are more likely to have managers whose perspectives are insular – who are driven by personal biases and superstitions rather than objective conditions or challenges (Miller & Toulouse 1998: 231).

Daft & Weick (1984: 285) has four specific assumptions that underlie the model developed in their research and clarify the logic and rationale on which the interpretation system approach is based.

The most basic assumption is that organisations are open social systems that process information from the environment. The environment contains some level of uncertainty, so the organisation must seek information and then base organisational action on that information. Organisations must develop information processing mechanisms capable of detecting trends, events, competitors, markets and technological developments relevant to their survival (Daft & Weick 1984: 285).

The second assumption concerns individual versus organisational interpretations. Individuals send and receive information and in many ways carry out the interpretation process. Organisation theorists realise that organisations do not have mechanisms separate from individuals to set goals, process information or perceive the environment. People do these things (Daft & Weick 1984: 285).

Individuals come and go, but organisations preserve knowledge, behaviours, mental maps, norms and values over time. The distinctive feature of organisational level information activity is sharing.

The third assumption is that strategic-level managers formulate the organisation's interpretation. When one speaks of organisational interpretation

one really means interpretation by a relatively small group at the top of the organisational hierarchy. A large number of people may span the boundary with the external environment and this information is channeled into the organisation. Organisations can be conceptualised as a series of nested systems, and each subsystem may deal with a different external sector. Upper managers bring together and interpret information for the system as a whole (Daft & Weick 1984: 285).

Many participants may play some part in scanning or data processing, but the point at which information converges and is interpreted for organisation level action is assumed to be at the top manager level. This assumption is consistent with Aguilar's (1967) observation that below the vice presidential level, participants are not informed on issues pertaining to the organisation as a whole (Daft & Weick 1984: 285).

The fourth assumption is that organisations differ systematically in the mode or process by which they interpret the environment. Organisations develop specific ways to get to know the environment. Interpretation processes are not random. Systematic variations occur based on organisation and environmental characteristics, and the interpretation process may in turn influence organisational outcomes such as strategy, structure and decision making (Daft & Weick 1984: 286).

4.15 DEFINITION OF INTERPRETATION

Organisations must make interpretations. Managers literally must wade into the ocean of events that surround the organisation and actively try to make sense of them. Organisation participants physically act on these events, attending to some of them, ignoring most of them and talking to other people to see what they are doing (Braybrooke 1964).

4.15.1 Toward a model of organisational interpretation

Two key dimensions are used here to explain organisational differences. They are: management's belief about the analysability of the external environment and the extent to which the organisation intrudes into the environment to understand it. The proposed model provides a way to describe and explain the diverse ways organisations may obtain knowledge about the environment (Daft & Weick 1984).

4.15.1.1 Assumptions about the environment

When an organisation assumes that the external environment is unanalysable, an entirely different strategy will apply. The organisation to some extent may create the external environment. The key is to construct, coerce or enact a reasonable interpretation that makes previous action sensible and suggests some next steps (Daft & Weick 1984: 287).

What factors explain differences in organisational beliefs about the environment? The answer is hypothesised to be characteristics of the environment combined with management's previous interpretation experience. When the environment is subjective, difficult to penetrate or change, managers will see it as less analysable (Daft & Weick 1984: 287).

4.15.1.2 Organisational Intrusiveness

The second major difference among interpretation systems is the extent to which organisations actively intrude into the environment. Some organisations actively search the environment for an answer. They allocate resources to each activity. They hire technically oriented MBA's; build planning, forecasting, or special research departments; or even subscribe to monitoring services.

Passive organisations accept whatever information the environment gives them. These organisations do not engage in trial and error. They do not actively search for the answer in the environment. Research evidence suggests that many organisations are informal and unsystematic in their interpretations of the environment. These organisations tend to accept the environment as given and respond actively only when a crisis occurs (Daft & Weick 1984: 288).

One explanation of differential intrusion into the environment is conflict between organisation and environment. When the environment is perceived as hostile or threatening, or when the organisation depends heavily on the environment, more resources are allocated to the intelligence gathering function. Organisations attempt to develop multiple lines of inquiry into the environment (Daft & Weick 1984: 288).

4.15.1.3 The Model

Based on the idea that organisations may vary in their beliefs about the environment and in their intrusiveness into the environment, organisations can be categorised according to interpretation modes. The two underlying dimensions are used as the basis of an interpretation system model.

The *enacting* model reflects both an active, intrusive strategy and the assumption that the environment is unanalysable. These organisations construct their own environments. They gather information by trying new behaviours and seeing what happens (Daft & Weick 1984: 289).

The *discovering* model also represents an intrusive organisation, but the emphasis is on detecting the correct answer already in an analysable environment rather than on shaping the answer (Daft & Weick 1984: 289).

Organisations characterised by *conditioned viewing* (Aguilar 1967) assume an analysable environment and are not intrusive. They tend to rely on established data collection procedures, and the interpretations are developed within the traditional boundaries.

Undirected viewing (Aguilar 1967) reflects a similar passive approach, but these organisations do not rely on hard, objective data because the environment is assumed to be unanalysable. Managers act on limited, soft information to create their perceived environment.

4.15.2 Other organisational characteristics

Scanning characteristics pertain to the nature and acquisition of data for top management about the environment. The data may vary by source and acquisition, depending on the interpretation mode of the organisation (Daft & Weick 1984: 289).

4.15.2.1 Data sources

Data about the environment can come to managers from external or internal sources, and from personal or impersonal sources (Aguilar 1967). Sources are external when managers have direct contact with information outside the organisation. Internal sources pertain to data collected about the environment by other people in the organisation and then provided to managers through internal channels (Daft & Weick 1984: 290).

4.15.2.2 Data Acquisition

Organisational mechanisms for acquiring information and the regularity of acquisition are other distinguishing characteristics of organisational scanning.

Undirected viewing organisations will make little use of formal management information. Data will tend to be irregular and casual (Daft & Weick 290).

4.15.2.3 Interpretation process

Interpretation pertains to the process by which managers translate data into knowledge and understanding about the environment. This process will vary according to the means for equivocality reduction and the assembly rules that govern information processing behaviour among managers (Daft & Weick 1984: 291).

Equivocality is the extent to which data are unclear and suggest multiple interpretations about the environment.

Assembly rules are the procedures or guides that organisations use to process data into a collective interpretation. The content of these rules and the extent to which they are enforced depend on the organisation.

4.16 ENVIRONMENTAL SCANNING PROCEDURE

Like any other new programme, the scanning activity in a corporation evolves over time. There is no way to introduce a foolproof system from the beginning. If conditions are favourable and if there is an established system of strategic planning in place and the chief executive officer is interested in a structured effort of scanning the evolutionary period shortens (Jain 1993: 153).

Behavioural and organisational constraints require that things be done over a period of time. The level and type of scanning that a corporation undertakes should be custom designed and a customised system takes time to emerge into a viable system.

4.17 ENVIRONMENTAL SCANNING IN STRATEGY FORMULATION

It can be said that strategic management should consist of four components,

- comprehensive environmental analysis;
- goal formulation;
- strategy formulation; and
- strategy implementation.

In the environmental scanning process, data is acquired from the external environment to be used in problem definition and strategic decision making. In the role of gatekeeper or liaison and boundary spanner, the corporate communication manager or function provides top management with the critical information needed to formulate strategy. In this role, corporate communication makes the biggest contribution to organisational effectiveness, and therefore the bottom line (Steyn & Puth 2000: 166).

Most companies are able to provide ongoing business information. Where many fall short is in providing information to stimulate thinking about potentially important considerations that are further out in the future or that fall outside the normal purview.

Organisations should be encouraged to consider events beyond the near future and the familiar. Some companies do this by bringing in experts to address such issues with management. Industry associations and outside board membership are other possible sources for such stimulation (Aguilar 1992: 59).

One of the most effective ways of focusing on the future is for managers at all levels to discuss future considerations with each other. For example, senior managers can encourage the constructive exchange of information by using task teams comprising members from different business units, different geographical

regions and different functional backgrounds for strategic analysis and decision making (Aguilar 1992: 59).

The organisational process of people interacting to generate, interpret, and use business intelligence becomes more difficult when expert inputs are required. Part of the difficulty is integrating the expert input in the decision-making process (getting the expert to address the relevant business issues and to communicate these issues clearly to decision makers who are not experts on the subject) (Aguilar 1992: 59).

Business communicators mostly have education and expertise in the traditional methods of communicating an organisation's message. Yet they are working for and in organisation's that are being revolutionised. Even what we call an organisation in the future may be different. Stepping through the electronic doorway, the communicator finds himself or herself in the virtual corporation and the glass house of transparent communication. Past experience in the field has not fully prepared the communicator for these challenges.

Forces acting on communicators are those that shape the lives of professionals everywhere. These are social, demographic, business and organisation-related, global, technological, educational, scientific, government and personal.

Communicators are in a special situation as knowledge workers. Organisations are gradually realising the importance of creating and building intellectual capital. A key factor in successful global business and economic development is the effective use of knowledge and information in business practices. Communicators are one of the keys to that effective use. They must make sure that, through their own skills, knowledge and expertise, their organisations know their value.

One strategy is for them to work themselves into a more prominent strategic position in the organisation. To do so, they need a stronger business background and deeper insight into their organisation's information and communication needs. Changes, for instance globalisation, must be turned into opportunities.

Many people are plagued with too much information and not enough time to process it. Communicators (should) have the expertise to become information brokers by helping to sort out the important from the unimportant.

Corporate communication practitioners use formal and informal activities to learn what is going on in the organisation's environment. In systems language, environmental scanning is the detection of environmental turbulence or change likely to affect the homeostasis of the system (Steyn & Puth 2000: 166).

A system of environmental scanning or monitoring calls for the selection and collection of specified categories of information. The cornerstone for building such a system is an understanding of the information needs of the organisation's executives. Based on these needs, information categories are established that serve as the basis for selecting information in the scanning process (Steyn & Puth 2000: 167).

If collected data is to be of value to the organisation, it must be interpreted and used in the formulation of corporate strategy to initiate, confirm or modify management decisions and to aid in the design of communication programmes. When issues are identified and interpreted, corporate priorities can be set, programmes can be decided upon, and responsibility can be assigned.

There are two distinct approaches to environmental scanning: the "outside-in" or macro-approach, and the "inside-out" or micro approach. Successful organisations plan from the outside in and not from the inside out, because the

environment shapes the future of the organisation. An organisation can influence changes in internal trends, and manage them. However, external issues and trends are far less amenable to management control.

4.18 STEPS THAT EXPLAIN THE RELATIONSHIP BETWEEN ENVIRONMENTAL SCANNING AND THE COMMUNICATION STRATEGY

1. Keep a tab on broad trends appearing in the environment

Once the scope of environmental scanning is determined, broad trends in chosen areas may be reviewed from time to time.

2. Determine the relevance of an environmental trend

Not everything happening in the environment might be relevant to the company. An attempt must be made to select those things that are significant to the company.

3. Study the impact of an environmental trend on a product/market

An environmental trend can pose either a threat or an opportunity for a company's product or market. This impact must be studied.

4. Forecast the direction of an environmental trend into the future

If an environmental trend does appear to have significance for a product or market, it is desirable to determine the course that the trend is likely to adopt. In other words, attempts must be made at environmental forecasting.

5. Analyse the momentum of the product/market business in the face of the environmental trend

Assuming that the company takes no action, what will be the shape of the product/market performance in the midst of the environmental trend and its future direction?

6. Study the new opportunities that an environmental trend appears to provide

An environmental trend may not be relevant for a company's current product/market, but it may indicate promising new business opportunities.

7. Relate the outcome of an environmental trend to corporate strategy

Based on environmental trends and their impacts, a company needs to review its strategy on two counts: changes that may be introduced in current products/markets and feasible opportunities that the company may embrace for action (Jain 1993: 159).

4.19 MODES OF ENVIRONMENTAL SCANNING

Scanning is not a monolithic activity. Environmental scanning includes both looking at information (viewing) and looking for information (searching). Research in organisation science suggests that it might be helpful to distinguish between four modes of organisational scanning: undirected viewing, conditioned viewing, informal search and formal search (Choo 1998: 23).

In undirected viewing, the individual is exposed to information with no specific informational need in mind. The goal is to scan broadly in order to detect signals of change early. Many and varied sources of information are used, and large

amounts of information are screened. The granularity of information is coarse, but large chunks of information are quickly dropped from attention. As a result of undirected viewing, the individual becomes sensitive to selected areas or issues (Choo 1998: 24).

In conditioned viewing, the individual directs viewing of information about selected topics or to certain types of information. The goal is to evaluate the significance of the impact on the organisation. The individual wishes to do this assessment in a cost-effective manner, without having to dedicate substantial time and effort in a formal search. If the impact is assessed to be sufficiently significant, the scanning mode changes from scanning to searching (Choo 1998: 25).

During informal search, the individual actively looks for information to deepen the knowledge and understanding of a specific issue. It is informal in that it involves a relatively limited and unstructured effort. The goal is to gather information to elaborate an issue so as to determine the need for action by the organisation. If a need for a decision or response is perceived, the individual dedicates more time and resources to the search (Choo 1998: 25).

During formal search, the individual makes a deliberate or planned effort to obtain specific information about a specific issue. Search is formal because it is structured according to some pre-established procedure or methodology. The granularity of information is fine, as search is relatively focused to find detailed information (Choo 1998: 25).

The goal is to systematically retrieve information relevant to an issue in order to provide a basis for developing a decision or course of action. Formal searches could be a part of competitor intelligence gathering, patents searching, market analysis or issues management among other activities. Formal searches prefer information from sources that are perceived to be knowledgeable or from

information services that make efforts to ensure data quality and accuracy (Choo 1998: 25).

In order to be effective, environmental scanning needs to engage all four modes of viewing and searching. Undirected viewing helps the organisation to scan broadly and develop peripheral vision so that it can see and think "outside the box". Conditioned viewing track trends and gives the organisation early warning about emerging issues. Informal search draws a profile of an issue or development, allowing the organisation to identify its main features and assess its potential impact. Formal search systematically gathers all relevant information about an issue to enable intelligent decision making (Choo 1998: 25).

4.20 TIME HORISON OF SCANNING

Scanning may be short or long term. Short-term scanning is useful for programming various operations, and the term may last up to two years. Long term scanning is needed for strategic planning, and the term may vary from three to twenty-five years. Rarely does the term of scanning go beyond twenty-five years. The actual time horison is determined by the nature of the product (Jain 1993: 163).

4.21 PROBLEMS FACING ENVIRONMENTAL SCANNING

Discussed below is the major problems companies face in the context of environmental scanning.
Many of these problems are, in fact, dilemmas that may be attributed to a lack of theoretical frameworks on the subject.

1. The environment per se is too broad to be tracked by an organisation, thus, it is necessary to separate the relevant from the irrelevant environment.

2. Another problem is concerned with determining the impact of an environmental trend and determining its meaning for business.
3. Even if the relevance of a trend and its impact are determined, making forecasts of the trend poses another problem.
4. A variety of organisational problems hinder environmental scanning. Presumably managers are the company's ears and eyes and therefore should be in a good position to perceive, study, and channel information. But, managers are also usually so tied up mentally and physically in their specific roles that they simply ignore happenings in the environment.
5. Environmental scanning requires "blue sky" thinking and "ivory tower" working patterns to encourage creativity, but such work perspectives are often not justifiable in the midst of corporate culture.
6. Frequently, top managers, because of their own values, consider dabbling in the future a waste of resources, therefore they adopt unkind attitudes toward such projects.
7. Many companies, as a matter of corporate strategy, like to wait and see, therefore, they let industry leaders, the ones who want to be first in the field, act on their behalf.
8. Lack of normative approaches on environmental scanning is another problem.
9. Often a change is too out of the way. It may be perceived, but its relationship to the company is not conceivable.
10. It is also problematic to decide what department of the organisation should be responsible for scanning. Should marketing research undertake environmental scanning? How about the strategic planning office? Who else should participate?
11. Often information is gathered that is overlapping, leading to a waste of resources. Frequently there are informational gaps that require duplication of effort (Jain 1993: 164).

4.21.1 Learning from Best Practices

Surveys of effective scanning practices in organisations appear to converge on a set of common best practice principles.

4.21.1.1 Plan and manage scanning as a strategic activity

As an engine of organisational learning, scanning should be managed as a strategic activity. In many ways, the scanning function is like a research and development programme, where the investment is for the longer term, but the payoff may be spectacular. Like research and development, scanning needs to be given a critical mass of talent and resources in order for it to take off, and it needs time to develop its knowledge and expertise. Successful programmes take three to five years to mature and the most effective scanning departments were at least five years old (Choo 1998: 25).

4.21.1.2 Implement scanning as a formal system

A formal scanning system is one that is planned, sustained and coordinated. Planning ensures that information gathering is based on the organisation's goals and critical information needs. Continuous monitoring enables the organisation to detect deviations from the norm and sense early warning signals. Sustained monitoring also allows the system to grow its information networks and build up its knowledge base. Coordination minimises duplication and maximises the scope and efficiency of information gathering (Choo 1998: 25).

Information must be managed as the core of the scanning function. Information management is a network of six interrelated processes: identifying information needs, acquiring information, organising and storing information, developing information products or services, disseminating information and using information. In identifying information needs, key groups of information users are

clearly identified and the situation in which they will use the scanning information carefully understood. Information acquisition is a widely distributed organisational activity, in which virtually everyone participates.

Communication managers perform a boundary role, functioning as a link between the organisation and its internal and external publics. Therefore, communication managers become systems managers who are knowledgeable about and able to deal with the complex relationship inherent in the organisation (Claasen & Verwey 1998: 76).

It is, however, this strategic management role of public relations that is more than often neglected. As management's communication arm, the communication manager has a role to play in acquiring information of relevance from outside and analysing and interpreting it. Without the communication manager's input of information about trends and developments in the environment no meaningful strategies can be constructed. The communication manager must help to define the target audiences to be reached by the organisation, and devise and implement plans to reach those audiences.

According to Claasen & Verwey (1998: 76) communication management in the South African business environment to a degree still suffers the consequences of traditional interpretations of the function - that of mainly media liaison and event management. Organisations have not yet fully made the transition in the perception of the function from a basically technical function to a more strategic function. Therefore, communication management is not always acknowledged for the contribution it can make to the organisation's survival in a dynamic global environment.

Although top managers are not the only sources of environmental information, they do play a significant role in gathering external intelligence. Research has shown that executives can spend as much as one quarter of their time monitoring

the environment (Hambrick 1981; Kefalas & Schoderbek 1973). And yet, environments can be diffuse, complex, dynamic and elusive. The magnitude of the scanning task can be daunting to any individual's information processing capabilities.

Some studies have found that businesses which seek out external information have reported significantly better sales, profitability, and productivity than those who do not (Daft et al. 1988: 123). Frederickson & Mitchell (1984: 399) however, found that the cost and time required for external information search did not always pay off for organisations in volatile environments.

Strategic planning is an important contributor to a firm's long-term growth and viability. Generally, firms that plan effectively outperform their non-planning counterparts. Scanning and environmental analysis in turn play a crucial role in supporting the planning process.

Industry structure models of strategy (e.g. Porter, 1999) have proposed the development of formal scanning units to collect strategic information about environmental sectors. However, relatively few firms have departments or individuals dedicated to environmental scanning. Consequently, scanning in most firms is done informally by senior management (Jain 1984).

Aguilar (1967) argued that executives will evaluate several factors before deciding to monitor a specific issue, including its scope and urgency, relationship to long-term plans, potential significance as a "problem" area, and whether the issue and its information needs are readily definable.

Chief executives of high performing firms have been found to scan the environment more broadly and more regularly (Daft et al. 1988) and devote more analysis to key environmental factors, than their counterparts in low performing firms.

Three sub scales to measure environmental scanning are utilised: frequency of scanning, interest in scanning, and number of hours spent scanning. Frequency refers to how often a firm scans its environment and is associated with the timeliness, relevancy and amount of information that firms are able to obtain about various sectors (for example customers, suppliers and competitors) of their task environment (Daft et al. 1988).

Scope indicates the number of different environmental sectors monitored by a firm. Scanning environmental sectors informs a firm of events and trends affecting its survival and prosperity. For example, rivals' competitive actions (new product introductions, price changes), customer demands, desires and buying habits, technological advances, and economic developments all require adaptive responses by the firm (Fahr et al 1984).

The scope and frequency of environmental scanning will affect the firm's ability to align its competitive strategy with its environment. Frequent scanning of environmental sectors provides the firm with current information and allows it to verify the accuracy of the information and to adapt to changing environmental conditions more rapidly than does infrequent scanning. Frequent scanning also positions the firm to stay abreast of environmental events and trends that threaten its existence or offer opportunities to exploit. Small firms are particularly vulnerable to rapidly developing major threats because they often lack the financial resources to withstand them (Beal 2000: 27).

Beal (2000: 27) concluded that frequent scanning of the environment will be positively related to environment/competitive strategy alignment. Experience shows that opportunities and threats can arise from many different sources. Thus, obtaining information about several different sectors furnishes the chief executive officers with more relevant information in aligning the firm's competitive strategy with environmental conditions.

Fahr et al. (1984) has verified the reliability and validity of these sub scales and found frequency and interest to be reliable. The third sub scale - number of hours spent scanning - was found to contain excessive measurement errors and was dropped as a result.

Jain's model progresses in four phases: primitive scanning, ad hoc scanning, reactive scanning and proactive scanning. The following descriptions of environmental scanning systems are based on Jain's (1984) study.

Phase one (primitive) depicts a situation where environment is taken as something inevitable and random, for which nothing can be done other than accept each impact as it occurs. Management is exposed to information, both strategic and non-strategic, without making any effort to distinguish the difference. No discrimination is used to discern strategic information and the information rarely is related to strategic decision making. In essence, scanning takes place without management devoting any effort to it (Jain 1984).

Phase two (ad hoc) is an improvement over phase one in that management identifies a few areas that need to be watched carefully. However, no formal system exists for scanning and no initiative is taken to scan the environment (Jain 1984).

In Phase three (reactive) environmental scanning begins to be rated important and efforts are made to monitor the environment to seek information in different areas. In other words, the management fully recognises the significance of the environment and dabbles in scanning, but in an unplanned, unstructured fashion (Jain 1984).

The Phase four (proactive) firm practices environmental scanning with vigour and zeal, employing a structured effort. Careful screening focuses the scanning effort on specific areas considered crucial. Time is taken to establish a proper

methodology to scan the environment, disseminate the scanned information and to incorporate it into the strategy (Jain 1984).

Prior studies have indicated that accessibility and availability of information increased its usage. Jain's (1984) study reinforces this fact since daily newspapers were identified as the most important source of scanning information.

Today, we live in an information intensive age. There is a tremendous amount of information available and waiting to be tapped by users. Apart from availability and accessibility, the cost/benefit evaluation is an important factor in the source selection process. Although newspapers provide the most current information, a considerable amount of time needs to be invested to obtain specific and relevant information from them (Jain 1984).

Environmental scanning is a form of system inputs – organisations gather intelligence about stakeholders/publics and environmental forces. According to Broom & Dozier (1990) environmental scanning moves through three stages: problem detection, exploration and description.

When these inputs are collected systematically, it forms part of environmental scanning.

The strategic function of scanning is early detection of emerging problems as well as quantification of existing or known problems in the environment. This kind of research is conceptually and methodologically distinct from programme evaluation – the latter being designed to evaluate the planning, implementation and impact of communication programmes (Dozier 1986).

Environmental scanning is generally viewed by strategic management as a prerequisite for the formulation of effective business strategies. Moreover,

effective scanning of the environment is seen as necessary to the successful alignment of competitive strategies with environmental requirements and the achievement of outstanding performance (Beal 2000: 27).

Superior firm performance is a major objective of all the stakeholders of a firm. Strategists and strategic management scholars generally agree that both large and small firms that align their competitive strategies with the requirements of their environment outperform firms that fail to achieve such alignment (Beal 2000: 27).

Environmental scanning is widely viewed as the first step in the process linking strategy and environment. The underlying premise is that scanning the task environment and the general environment allows a firm to learn about opportunities that may be positioned to take advantage of. Conditions or events that threaten its performance or survival can be identified, thus enabling the firm to formulate a competitive strategy congruent with critical environmental conditions (Beal 2000:27).

Although research on environment-strategy alignment is extensive, tests of the hypothesis remain inconclusive due to several theoretical and methodological issues. Moreover, only a few empirical studies have examined relationships between Porter's (1980) generic competitive strategies and environmental scanning.

According to Broom's (Broom & Dozier 1986) open-systems model of public relations, scanning research is a form of system inputs. Organisations gather intelligence about publics and environmental forces. When these inputs are collected systematically by an organisation, the activities are forms of environmental scanning. These activities are conceptually distinct from performance control feedback, programme adjustment feedback and organisational adaptation feedback (Broom & Dozier 1990).

These feedback loops are conceptual representations in an open-systems model of the three types of programme evaluation that practitioners use to measure the preparation, implementation, and impact of public relations programmes. Scanning research is different.

Dozier (1986) argued that scanning research is methodologically distinct from evaluation research. Scanning research is inherently open-ended. Such research is exploratory in nature and vulnerable to premature closure. That is, scanning research is vulnerable to examining problems already known to either the practitioner or management. This is a weakness, because the strategic function of scanning is early detection of emerging problems as well as quantification of existing or known problems in the environment.

For these reasons, scanning research is ideally suited for a number of qualitative research techniques, including focus-group studies. In addition, questionnaires of specific publics or a broad cross section of many publics are also useful. These types of surveys, however, differ in many important respects from the highly structured field experimental designs of evaluation research (Dozier et al 1995).

The corporate strategy must continually be reviewed to incorporate the impact of environmental trends of strategic significance – a systematic approach to environmental scanning is therefore needed.

To make sense of chaos in today's world, decisions should be based on the maximum amount of information. The only way to secure information is to actively request it. In the case of key relationships with stakeholders this means regular conversations, focus groups and opinion surveys. It also means that the organisation must organise itself to be receptive to inputs of opinion.

In 1998 The American Society of Associations Executives (ASAE) undertook an extensive Environmental Scan – the most extensive effort to prepare associations for the future. To gather the kinds of information that associations can act on to align themselves with a fast-paced future, the foundation is centering its research round four concepts: anticipate, explore, experiment and collaborate (Rhea 1999: 90).

The ASAE Foundation will engage in a comprehensive environmental scan every two years. This research project engages a cross-section of the association community in a dynamic dialogue about the trends that will shape its challenges and possibilities for the next two to three years (Rhea 1999: 90).

The ASAE Foundation uses the environmental scan, its annual Think Tank conference and other research tools to identify critical research questions to explore. By framing these key issues, the foundation is able to develop the deeper understanding required to produce research results that can transform what associations do (Rhea 1999: 91).

In these research projects, associations will be asked to experiment with new ideas and strategies. They will work under the direction and protocols of the foundation's researcher (Rhea 1999: 91).

The Foundation is determined that its research projects not be reports from some remote observation point but that they can be grounded in the interests and sweat equity of associations and their business and academic partners (Rhea 1999: 91).

4.22 PUBLIC RELATIONS AUDITING

Falling under the umbrella of environmental scanning is a research technique called public relations auditing. This is research to define stakeholders/publics

and to determine how they perceive and evaluate the organisation. It determines the consequences the organisation has had on its stakeholders and the extent to which the organisation must correct those consequences. The primary purpose is to examine, catalogue, systemise and measure the organisation's performance as a corporate citizen (Steyn 2000: 10).

There are two basic types of public relations audits – stakeholder identification and corporate image studies (Steyn 2000: 10).

If the organisation has already done a communication audit, it may be time for an information system analysis (ISA), closely related to environmental scanning. Information system analysis involves an expert review of the process, systems, tools and templates that are used to exchange information in the organisation (Gayeski 2000).

The principal output of an information system analysis is a set of recommendations that influence performance. An information system analysis has several components:

- A meeting with executives to determine the overall goals and culture of the organisation.
- A systematic content analysis of print, audiovisual and online information to determine consistency of message and "voice," and the relevance of the data to actual performance.
- Behavior-setting analyses of key staff at their work places to determine and observe how they use information and communication tools.
- An audit of communication "tools" (the media available such as newsletters, intranet, videoconferencing) and "rules" (the templates or standards used to produce the information).
- Focus groups or small group interviews to determine the needs and issues of key employee groups (Gayeski 2000).

The analyses use both quantitative and qualitative research methods, and the tools are numerous. An information system analysis can assess a company's "rules and tools" and improve bottom-line performance. It can also assist the communication professional in becoming an architect of communication instead of only being a wordsmith (Gayeski 2000).

Although many organisations recognise the importance of environmental scanning, past studies indicate that very few organisations have adopted a systematic and structured approach to this task (Fahey, King and Narayanan 1981: 32).

Difficulties in implementation have been cited as the cause of failure to adopt these systems. Implementing effective scanning systems, not only entails establishing appropriate environmental monitoring procedures to collect relevant and timely information, but also involves the dissemination of this information to the appropriate user (Fahey, King and Narayanan 1981: 32).

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The "explosion" of available information, and the complexity and dynamism of the current environment will force organisations that want to use information as a competitive tool, to adopt more systematic and structured methods for their scanning task (Fahey, King and Narayanan 1981: 32).

4.22.1. Stakeholder identification

- Identifies relevant stakeholders/publics (does the organisation have an effect on them or do they affect the organisation);
- Evaluates the organisation's standing with each relevant stakeholder/public;
- Identifies issues of concern to those stakeholders;
- Measures the power of each stakeholder (Steyn 2000: 10).

4.22.2 Corporate image studies

These are an extention of the public relations audit:

- Determine the familiarity of each stakeholder/public with the organisation;
- Determine their attitudes towards the organisation;
- Determine the personality characteristics each stakeholder associates with the organisation (Steyn 2000: 10).

In the problem identification phase of strategy formulation, these research techniques are of the utmost importance in identifying strategic issues that might impact negatively on the organisation so that they may be addressed. Providing such strategic information to top management represents the public relations manager's participation in corporate strategy formulation (Steyn 2000: 10).

Once top management has formulated the corporate strategy, it is the responsibility of the public relations manager to develop a corporate communication strategy based on the corporate strategy. The corporate communication strategy serves as a framework for, and provides direction to, the activities of the public relations function – what must be communicated to solve organisational problems or capitalise on opportunities (Steyn 2000: 10).

Areas tracked by chief executive officers include demographics, economics, public policy in the United States and abroad, business, technology, education, and special education. Semi-annually, managers prepare updates of each area to share with each other and other staff members.

Others focused on business journals to scan for leadership and management trends. Networking on chief executive officer level, visits with industry chief executive officers association committees and involvement in state government was also mentioned.

Networking and speaking with the association's manufacturer members are ways of identifying trends. Talking with representatives from other industry associations and related groups and reading the industry trade magazines are other sources of information.

According to Truncale (1999: 38) one must start by setting up an ongoing process for monitoring the external environment in which your firm exists. That includes three things: the world around you, your specific customers and markets and both existing and emerging technology.

Nowhere are the changes in the world more radical than in the way people communicate. Fifteen years ago, business communications involved print, the telephone or face to face meetings. Today, many more avenues of communication exist, and they can be layered upon one another – cell phones, beepers, the Internet, email, voice-mail, faxes, et cetera. Part of the communication professional's job is to keep abreast of communication technology (Truncale 1999: 38).

Truncale (1999: 38) suggests a team that monitor news magazines and trade publications, talks with dealers and suppliers, meets with customers and reviews the attendance of customers at trade shows and conferences.

Collect relevant information and share the knowledge on a regular basis. He further suggests the appointment of a chief information officer or a chief technology officer "who can help monitor trends and guide decision-making".

"Today this position is just as important as that of a vice president of manufacturing or a vice president of sales and marketing".

4.23 CONCLUSION

In Chapter Four, is was determined that environmental scanning is a process that begins with viewing the environment, proceeds with studying how the environment affects the organisation, and concludes with a rough outline of the future state of the environment. It is this prediction of the environment upon which top management should base their strategies for the organisation. However, too often plans are made only with regard to the current environment.

In Chapter Five, the research methodology and research findings will be discussed. Conclusions and recommendations will also be made.

CHAPTER FIVE
RESEARCH METHODOLOGY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In Chapter Four environmental scanning and the growing need for scanning were discussed. The various environments that need to be scanned, the levels of scanning and scanning techniques also received attention.

In this chapter the research methodology and research findings are discussed. Attention is also given to conclusions and recommendations concerning the implementation and management of environmental scanning. Recommendations concerning future research in this field also receive attention.

5.2 RESEARCH METHODOLOGY

The research focused on the tertiary education sector in South Africa. This sector was divided into three groups: universities, technikons and registered private universities.

Bearing in mind the clear and small number of possible respondents, no sample was taken. Questionnaires were sent to the whole population of possible respondents, that is representatives of all the universities, technikons and registered private universities in South Africa.

In total 63 questionnaires were sent to representatives from universities of which 37 were returned. That is a response rate of 58.7%.

Altogether 45 questionnaires were sent to representatives from technikons, of which 25 were returned. That is a response rate of 55 %.

Private universities in South Africa that are registered with the Department of Education formed the third group. It must be stated that the Department of Education gave these institutions a due date whereby they must have registered. At the time that this research was conducted there were only five universities that have registered.

Only private universities and not private college's etc were considered in this section.

In total 15 questionnaires were sent to representatives of private universities, of which 10 questionnaires were returned - a response rate of 66.6%.

A total of 51.4 % (37) of the respondents were representatives of universities, 34.7% (25) were representatives of technikons and 13.9% (10) were representatives of private universities.

Questionnaires were sent to the principals/rectors and marketing and communication managers/directors as well as scenario planners/forecasters/information technology directors of all these institutions.

In total 17.8% (13) principals/rectors, 41% (30) marketing and communication managers/directors and 38.3% (28) scenario planners/forcasters/information technology directors completed the questionnaire. Two of the respondents have other designations than the above.

In total 73 of the 123 questionnaires were returned, which is a response rate of 59.3%.

The following answers were received:

PART ONE

1. Statement: My institution uses the following methods of environmental scanning

The most commonly used methods of environmental scanning were listed and respondents had to indicate if they never, seldom or often used the options as listed.

A total of 49 (68%) of the respondents indicated that they use analysis of printed media often. This was followed in importance by networking (38 respondents or 54.2%). Analyses of the electronic media are the environmental scanning method used most often by 35 (50%) of the respondents.

A total of 33 (44.6%) respondents indicated that they use discussion groups often. The least often used environmental scanning methods are analyses of the radio (34.7%) and analyses of television broadcasting.

Table 5.1: Methods used for environmental scanning

	Never	Seldom	Often
Analyses of printed media (journals, newspapers etc)	5.5% (4)	26% (19)	68% (49)
Analyses of the electronic media	8.5% (6)	41% (29)	50% (35)
Analyses of the radio	14% (10)	50.7% (35)	34.7% (24)
Analyses of television broadcasting	18.5% (13)	52.8% (37)	28.5% (20)
Networking	10% (7)	35.7% (25)	54.2% (38)
Discussion groups	19.7% (14)	33.8% (24)	46.4% (33)

2. Question: How important does your institution regard the scanning of the following levels for strategic planning purposes?

The macro level was rated as the most important level for scanning by the institution. The meso level was rated as second most important and the micro level was the least important according to the respondents.

This was the expected response and is in relation with the importance that the three scanning levels should receive.

Table 5.2: Importance of levels for strategic planning services

	Not impor-tant	Impor-tant	Very impor-tant	Not appli-cable
Micro level (the environment inside the organisation)	4% (3)	42.4% (31)	53.4% (39)	0%
Meso level (the tertiary education sector)	2.7% (2)	32.8% (24)	64.3% (47)	0%
Macro level (the external environment, including, for instance, politics, economics, legislation etc)	0% (0)	27.4% (20)	71.2% (52)	1.3% (1)

3. Question: Who is responsible for environmental scanning in your institution? Please mark all relevant options.

Altogether 36% of the respondents said that a specific unit conducts the environmental scanning and 63.9 % said that the scanning is not conducted by a specific unit.

A total of 80.3% of the respondents said that the marketing and communication department conducts environmental scanning and 19.7% said that the marketing and communication department is not responsible for scanning.

Altogether 84.6 % of the respondents replied that top management conducts environmental scanning and 15.3 % said that they are not responsible.

A total of 37.2% of the respondents replied that everyone has a responsibility to scan and 62.7% said that it is not everyone's responsibility.

69.4 % of the respondents replied that the principal/rector conducts scanning and 30.5 % responded that he or she does not conduct scanning.

It is clear that the marketing and communication department and top management are perceived to be the units/people that are responsible for environmental scanning in their institutions.

Table 5.3: Individuals or departments responsible for scanning

	Yes	**No**
A specific unit	36%	63.9%
The Marketing/Communication Manager or Department	80%	19.6%
Top Management (Rectorate/Deans etc)	84.6%	15.3%
Everyone who has the opportunity	37.2%	62.7%
The Principal/Rector	69.4%	30.5%
It is not done at all	12.5%	87.5%

4. Question: Is the strategic planning of your institution? (Please mark only one)

A total of 8.2 % of the respondents said that their institution is focused on the present, 19.8 % said that they are focused on the future and 72.6% said that they focus on both the present and the future.

According to the literature study, environmental scanning should be focused on the future, although the present is also important. Lessons and experience from the past should, of course, also be taken into consideration.

In the literature study it was noted that organisations tend to be too inwards and current focussed and not proactive enough. The response that 72.6% of the respondents are of the opinion that their institutions focus on both the present and the future is positive. The scanning should further be more externally than internally focused.

5. Question: What is the impact of environmental scanning on the ultimate success of your institution? (Please mark only one)

A total of 6.8% of the respondents said that the impact of environmental scanning on their institution is not significant, 49.3 % said that the impact is significant and 43.8% replied that the impact is very significant.

From the responses, it is clear that respondents are of the opinion that environmental scanning has a significant to very significant impact on their university or technikon.

PART TWO

The next section deals with questions about the environmental scanning methods used (if relevant) in the institution.

1. Please indicate how often, if at all, the following environmental scanning/forecasting methods are used in your institution. You may mark more than one method.

Extrapolation Procedures were marked as the environmental scanning method used often by most (47%) of the respondents. It was followed by Scenario Building (45%) while a total of 41% of the respondents indicated that Scenario Analyses and Intuitive Reasoning were used often in their university or technikon. This was followed by Trend-Impact Matrices (40%), Delphi Technique (39.7%) and Model Building (37.5%). Next were Network Methods (28%), Morphological

Analysis (27.7%), Historical Analogy (26.7%), and Cross-Impact Matrices (19%). Only 13% of the respondents replied that they often use the Missing-Link Approach.

Table 5.4: Frequency of scanning methods used

	Often	Seldom	Never
Extrapolation procedures	47% (34)	43% (31)	9.7% (7)
Historical analogy	26.% (19)	57.7% (41)	15% (11)
Intuitive reasoning	41% (29)	45.7% (32)	12.8% (9)
Scenario building	45% (33)	36.9% (27)	17.8% (13)
Cross-impact matrices	19% (14)	47% (34)	33% (24)
Morphological analysis	27.% (20)	45.8% (33)	26% (19)
Network methods	28% (20)	39% (28)	32% (23)
Missing-link approach	13% (9)	53.6% (37)	33% (23)
Model building	37% (27)	38.8% (28)	23.6% (17)
Delphi technique	39% (29)	38% (28)	21.9% (16)
Trend-Impact analysis	40% (29)	40% (29)	19% (14)
Scenario analysis	41% (30)	27% (20)	31% (23)

2. Question: Please indicate how frequently your institution scans the following environments, if at all. The frequency of scanning is categorised. Please use the following indicators.

It is noteworthy that the regulatory environment is perceived to be the most important environment to scan continuously. Altogether 38% of the respondents indicated that they scan the regulatory environment continuously.

The social environment was rated as the second most important environment to scan continuously (35%), followed by the political environment (27.7%). The economic environment (23%) and the technological environment (22%) are perceived to be the least important.

The fact that the regulatory environment was identified as the environment that receives the most continuous scanning attention can indicate a fear by the education institutions that they might be negatively affected should they act outside the stipulated regulations. State subsidy could be one of the factors.

It is quite surprising that the social environment was indicated as the environment that receives the second most continuous scanning attention. This might be due to the fact that universities and technikons are very much a social institutions that must, partially, serve the community.

Table 5.5: Frequency of scanning of various environments

	Do not scan	Irregular	Periodic	Conti-nuous
Technological environment	1% (1)	30.5% (22)	45.8% (33)	22% (16)
Political environment	0% (0)	25% (18)	47% (34)	27.7% (20)
Economic environment	1% (1)	19% (14)	55.5% (40)	23.6% (17)
Social environment	7% (5)	22.5% (16)	35% (25)	35% (25)
Regulatory environment	1% (1)	15% (11)	45% (32)	38% (27)

3. **Question: Which department, group or individual should, in your opinion, be responsible for scanning? Respondents could mark more than one option.**

Most respondents (93.7 %) said the management team of their technikon or university should be responsible for environmental scanning. That was followed in importance by the marketing and communication department. A total of 87.6 % of the respondents said that the marketing and communication department should be responsible and 40 % of the respondents think that the information technology department should be responsible.

A total of 34 % of the respondents said that all personnel should be responsible for environmental scanning and the least amount of respondents (27 %) said that the legal department should be responsible for environmental scanning.

Table 5.6: Individuals or departments who should be responsible for environmental scanning

	Yes	No
Legal Department	27% (15)	73% (40)
Information Technology Department	66.6% (40)	33% (20)
The Management Team of the University/Technikon	93.7% (60)	6% (4)
Marketing/Communication Department	87.6% (57)	12% (8)
All the personnel of the University/Technikon	34% (20)	66% (38)
It should not be done		

5.3 FINDINGS OF THE STUDY

Effective scanning of the environment is seen as necessary to the successful alignment of universities, private universities and technikons' competitive strategies with environmental requirements and the achievement of outstanding performance.

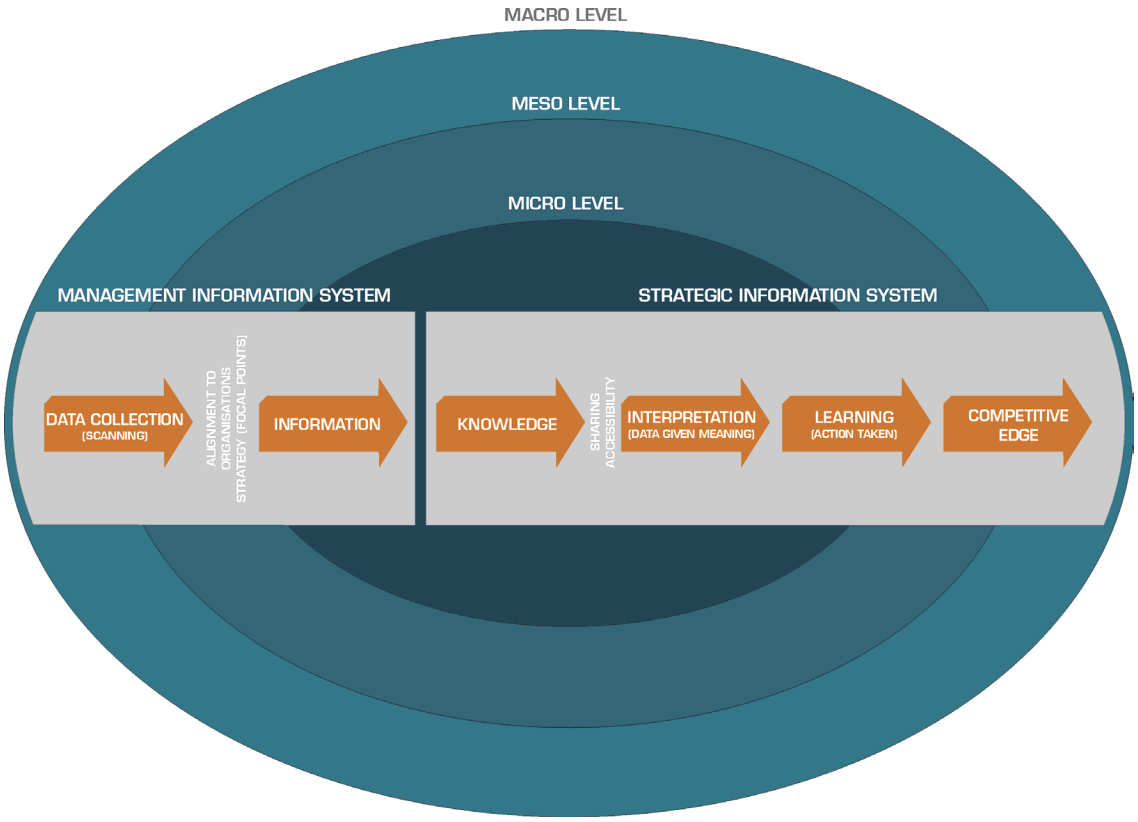
Environmental scanning is widely viewed as the first step in the process linking strategy and environment.

Implementing effective scanning systems not only entails establishing appropriate environmental monitoring procedures to collect relevant and timely

information, but also involves the dissemination of this information to the appropriate user.

The following model for environmental scanning are proposed. Various stages form part of this model. The stages are discussed in detail.

Figure 5.1 A model for environmental scanning



Source: Own research

Stage one: Data collection/Scanning

The first stage is *scanning*, which is defined as the process of monitoring the environment and providing environmental data to managers. Scanning is concerned with data collection. The organisation may use formal data collection systems, or managers may aquire data about the environment through personal contacts.

Data alone is not useful in the strategic processes in organisations. *Data* consists of raw facts - only when facts are organised in a manner that has meaning do they become information.

Stage Two: Alignment

Environmental scanning and the data gathered through scanning must be properly integrated into the planning process of the organisation. It is extremely important that the fitting must be well thought through and implemented. It must form part of the philosophy of the organisation. The environmental impact must be related to corporate strategy and must forecast the trend into the future.

Alignment is incumbment on the organisation's ability to obtain relevant information about its current and future environment, amongst others to avoid information overload.

Stage Three: Information

Information can be seen as a collection of facts organised in a way that they have value beyond the facts themselves. Turning data into information is a process.

A high value is placed on information in the workplace. Information, in all of its forms, is eating up megabytes of computer space, filling up file cabinets, obscuring desktops and overstuffing the bounds of briefcases throughout the world (Wurman 2001: 187).

The managerial mania for acquiring information has become such a hobby horse that few people have stopped rocking long enough to ponder what good information is if it can't be communicated. What matters is the ability – through instruction – to transfer information from the mind of one person to another (Wurman 2001: 187).

Since the emphasis here is on collection of relevant and timely information, this process is a cerebral one. That means individuals undertaking the scanning function need to make subjective judgements at various stages of the scanning process.

Since the value of the information is only realised when corporate planners utilise this information to make more informed decisions, organisations need to adopt structures that ensure that appropriate users attend to this information above the clutter of daily administrative tasks.

Stage Four: Knowledge

Information gained by environmental scanning must be converted into knowledge to provide real value and a competitive edge.

Knowledge is the body of rules, guidelines and procedures used to select, organise and manipulate data to make it suitable for a specific task.

Stage Five: Sharing/Accessability

Scanning results and information must be made accessible and available to everyone in the organisation that can possibly use it. Corporate communication, with its focus on relationships has an important role to play in this regard.

Prior studies (Jain 1984) have indicated that accessibility and availability of information increased its usage. It can be seen in the fact that newspapers were identified as the most important source for scanning information.

Today, however, we live in an information intensive age. There is a tremendous amount of information available and waiting to be tapped by users. It is very likely that the trend of increased use of sources such as trade journals and industry-specific government publications identified in the current study indicates that apart from availability and accessibility, the cost/benefit evaluation is an important factor in the source selection process.

This is a continuous process and not limited to be conducted only between the knowledge and interpretation phases.

Stage Six: Interpretation

It can be stated that in the past, organisations that did conduct scanning often times never really interpreted or used the scanning results. Information must be interpreted and disseminated before it has any value.

Here the human mind is engaged. Data are given meaning. Perceptions are shared and cognitive maps are constructed. Organisational interpretation is formally defined as the process of translating events and developing shared understanding and conceptual schemes among members and upper management.

Interpretation gives meaning to data, but it occurs before organisational learning and action.

Stage Seven: Learning

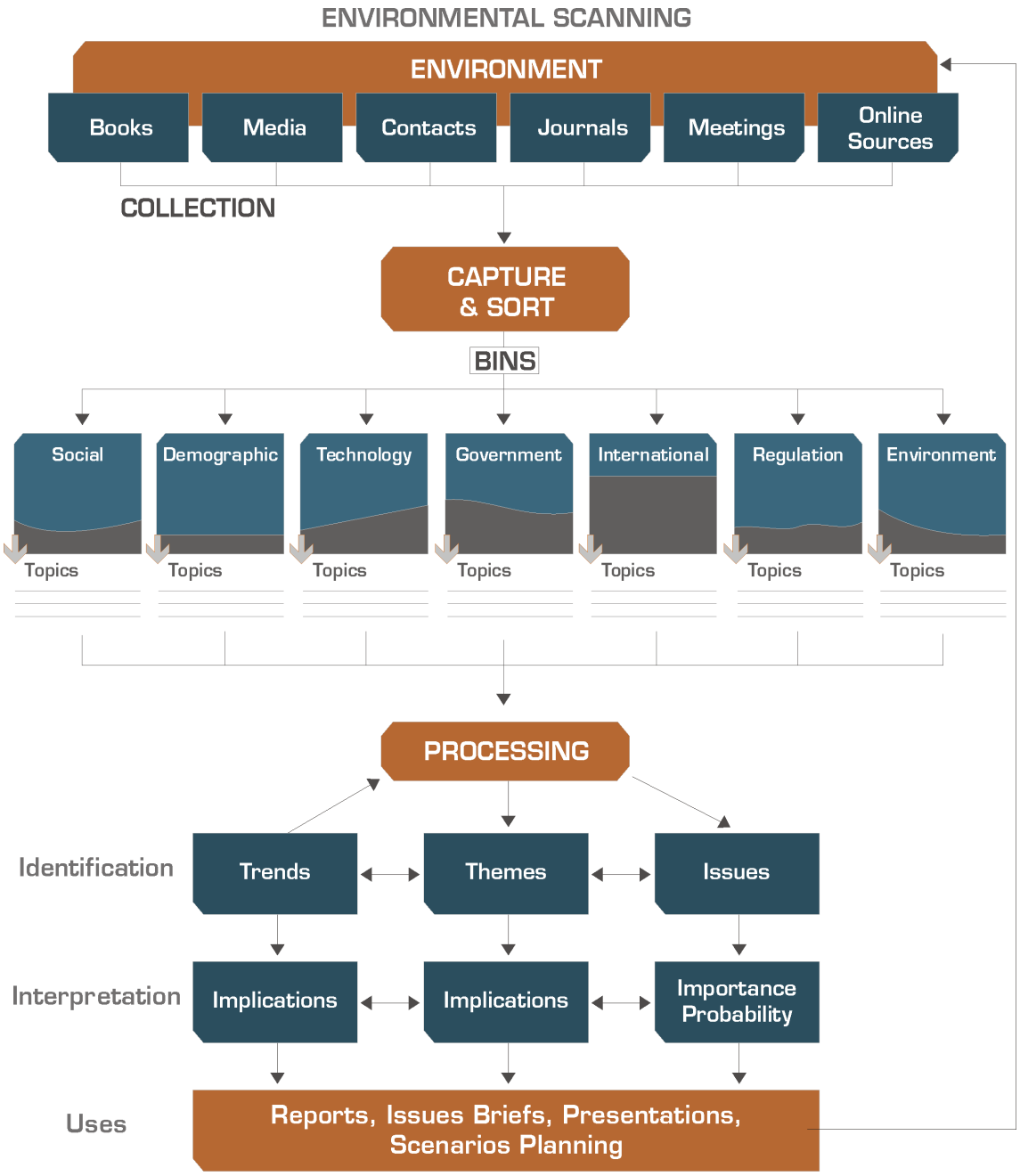
Learning is distinguished from interpretation by the concept of action. Learning involves a new response or action based on the interpretation. Organisational *learning* is defined as the process by which knowledge about action outcome relationships between the organisation and the environment is developed. It is the "action taken on knowledge gained" phase. This is where the "use" of knowledge gained through environmental scanning takes place.

Stage Eight: Competitive edge

The process discussed above results in a competitive edge for the organisation. That is the result of not only gathering data, but translating it into knowledge, interpreting it in terms of the organisation's focus and bottom line activities and sharing it with other decision makers in the organisation.

In the following figure, there is a more detailed explanation of the activities in each of the scanning phases.

Figure 5.2. A detailed illustration of the activities in each of the scanning phases



Source: Unknown

Although many tertiary education institutions recognise the importance of environmental scanning, few institutions have adopted a systematic and structured approach to this task. Difficulties in implementation have been cited in the past as the cause of failure to adopt these systems.

The environmental scanning process is exceptionally difficult because:

- It is future oriented
- There are a lot of complex variables involved
- The volume of available information is unlimited
- The information is unorganised, fragmented and uncontrolled
- Of the impact of an environmental trend on business
- Of difficulty relating environmental impact to corporate strategy
- The trend must be forecasted into the future
- Of the separation of the relevant environment from the irrelevant.

Scanning presents a difficult organisational problem because the environment is vast and complex, and managers' experience "bounded rationality" – they cannot comprehensively understand the environment.

A complex environment would seem to call for the increased use of sophisticated scanning systems, yet most information at top levels is gained through ad hoc, human sources. Top management's scanning tends to be irregular rather than systematic.

The “explosion” of available information, and the complexity and dynamism of the current environment will force organisations that want to use information as a competitive tool, to adopt more systematic and structured methods for their scanning task.

Uncertainty by itself will not lead to scanning behaviour. Unless the external events are perceived as important to organisational performance, managers may have little interest in them.

Upper-level executives do not indicate a consistent, concentrated tendency to scan according to their organisations’ strategies, neither is it target-oriented. Environmental monitoring is largely individual and directed to person-specific interests.

The aim of environmental scanning is not to predict the future, but rather to indicate current trends that might have an influence on the organisation, to be in a position to react on the trends.

The following figure illustrates the difference between scanning, monitoring, forecasting and assessment.

Figure 5.3 Differences between scanning, monitoring, forecasting and assessment

	SCANNING	MONITORING	FORECASTING	ASSESSMENT
Focus	Open-end viewing of environment Identify early signals	Track specific trends and events	Project future patterns and events	Derive implications for organization
Goal	Detect change already underway	Confirm or disconfirm trends	Develop possible and plausible projection of future	Derive implications for organization
Scope	Broad, general environment	Specific trends, issues, events	Limited to trends and issues deemed worthy of forecasting	Critical implications for organization
Time horizon	Retrospective	Real time	Prospective	Prospective and current
Approach	Unconditioned viewing of heterogeneity of stimuli	Conditioned viewing of selective stimuli	Systematic and structural	Systematic, structured, and detailed
Data characteristics	Unboundable and imprecise, vague and ambiguous	Relatively boundable gains in precision	Quite specific	Very specific
Data interpretation	Acts of perception, intuitive reasoning	Weighing evidence, detailing patterns	Judgments about inferences	Judgments about inferences and/or implications
Data sources	Broad reading, consulting many types of experts inside and outside	Focused reading, selective use individuals, focus groups	Outputs of monitoring, collected via forecasting techniques	Forecasts, internal: strategies, competitive context, and so forth
Outputs	Signals of potential change, detection of change underway	Specification of trends, identification of scanning needs	Alternate forecasts; identification of scanning and monetary needs	Specific organization implications
Transition	Hunches regarding salience and importance	Judgments regarding relevance to specific organization	Inputs to decisions and decision processes	Action plans
Organizational outcomes	Awareness of general environment	Consideration and detailing of specific unfoldments, time for developing flexibility	Useful decision models and processes	Specific actions

Source: King & Cleland (1987)

5.4 RECOMMENDATIONS

Environmental scanning was originally seen as the task of top and middle level management. The abundance and complexity of relevant information now requires a distinct and separate group of people. It should be a continuous, year-round scanning activity, and a specific number of people should be dedicated to performing the scanning activity.

A corporate environmental scanning unit is recommended. It must be broad in scope and future directed. Knowledgeable specialists should be appointed for the task. Suitable personnel, committed to the specific task, must be selected. The corporate communication manager has a role to play. Environmental scanning can be used to become the sensory intelligence of the organisation.

Seeing that the information must be re-packaged before it will be of any use to management, economic and management qualifications will be necessary. Knowledge of forecasting techniques is also necessary, seeing that projections about environmental occurrences are necessary.

Having proposed that a special unit should be established, this must be placed in perspective. In the same way that effective strategic planning rests on the efforts of general managers of operating units, effective environmental scanning depends on the judgements and interpretations of general managers familiar with those environments.

This task cannot be easily delegated to technical specialists at corporate headquarters, because these specialists do not have to answer for the results of the business unit's performance. They do not have a system for defining,

measuring and interpreting a business unit's environment more accurately than the unit's own management can.

Two relevant techniques for environmental forecasting is scenario and impact analysis and personnel that are conducting scanning should be skilled in the application of these techniques.

Both these techniques aim at determining the cross impact of a variety of factors. The aim is to determine important future occurrences (with a high probability of occurrence) and to determine what other environmental changes will have an influence on these occurrences or will be influenced by it. The ultimate aim is to include the information as an important input in the strategic decision making process, so that the strategies that are decided upon will be directed towards the most probable developments in the environment.

This section can, through the use of formal processes, assist top management. Strategic management cannot take place without information on the external environment. The search for relevant external information must be directed in such a way that only the most important information areas are identified.

The most important information areas are those that will have a prominent impact on the activities of the organisation and have a high probability of being realised in the future.

It is important that the users of such a formal system understand the need for it and is involved in its development. Therefore, it is necessary to:

- Set reasonable aims and standards
- Get user by-in

- Gain the support of top management
- Show the value of such a system to top management
- Realise that this will result in considerable financial expenses to implement the system
- Ensure that the flow is two-way and interactive
- Design the system to meet the requirements of top management
- Realise that the system will also have to be flexible and change to meet the requirements of the constantly changing environment.

The results of the scanning should lead to a more positive attitude on the side of the organisation towards the environment. Scanning should include all possible influences on the organisation. This requires that decisions pertaining to the purpose, scope, and use of information be made prior to data collection. Furthermore, to reduce redundancy and obtain the best "information values" organisations will be forced to make a number of decisions regarding the specialisation of the environmental scanning function, types of sources of information used and the importance of the environmental sectors.

The corporate communication function must provide information and knowledge of the values, opinions, feelings and behaviour of the organisations stakeholders. This information can be used for strategic decision making. They must:

- Understand the nature and role of environmental scanning in the process of strategy formulation

- Get to know the various types, models and techniques of environmental scanning

- Form a clear picture of all the sources of information for environmental scanning

- Find out what research on environmental scanning reveals and apply the best practices in the organisation

- Put the essential prerequisites for successful environmental scanning into place.

The environmental scanning function cannot be set up overnight, but evolves over time. The level and type of scanning should be custom designed to suit the needs and culture of the organisation.

Steyn & Puth (2000: 181) suggests the following system as a starting point:

- A senior person such as the corporate communication manager is made responsible for scanning.

- A core list of about 100 relevant information sources worldwide is identified.

- These sources are assigned to volunteers within the organisation, one per person. The corporate communication or line manager should scan selected sources that are considered extremely important.

- Each scanner reviews articles or news items in the assigned source that meet predetermined criteria, based on the organisation's aims.

- The scanned information is given a predetermined code.

- The abstract, along with the codes, is submitted to a scanning committee to determine the relevance in terms of the effect on corporate or strategic business unit or product-market strategy. An additional relevance code is added at this time.

- The codes and the abstract are computerised.

- The information is disseminated electronically organisation-wide. Line managers whose areas are directly affected are encouraged to contact the scanning committee for further analysis.

Against the background of the constant changing environment - the chaos - it is obvious that this function cannot become stagnant and will never be perfect. It will have to constantly reinvent itself to keep up with the pace.

Any living organism is dependent on its sensory perception to survive and sustain itself, both externally in relation to its environment and internally with regard to co-ordinating its constituent components. This same principle is true for the organisation as a living entity. Eventually, this process of perceiving, classifying and filtering stimuli from the environment, and adapting internally to react appropriately to such stimuli, is a communication process (Steyn & Puth 2000: 232).

Overall, the study suggests that firms hoping to establish a successful environmental analysis programme should address these principles:

1. Make a long term commitment

Given the non-conventional nature and future focus, plus its tenuous connection to the bottom line, an environmental scanning system will have little chance of achieving success without continuous management support and excellent implementation.

2. Link it to strategies and operations

Environmental scanning must be linked to current planning and operations.

3. Design a flexible process

Success over time might be accomplished by designing a simple, core structure of expertise, championship and resources.

4. Fit the style and culture of the organisation

Environmental scanning must be "custom designed" to fit both the culture of the organisation and the decision-making style of its key executives. Understanding the organisation and its people is at least as important as understanding the environment and its strategic issues.

As was stated in Chapter One, the real value of corporate communication lies in the quality of the long term relationships established between the organisation and its strategic publics. Environmental scanning plays a critical role in this process.

In the past most evaluation focussed on the perceptions that one or both parties had about a specific relationship. Closely related is the measurement of predictions about the impact of this relationship for the interested parties. Most public relations evaluation was one-way, developed to determine the effect of communication on its publics. The measurement of relationships assumes two-

way communication processes with effect on both parties in the relationship. Scanning plays an important role here.

Numerous initiatives have been initiated across the world of which most is still in the initial phases of development. Results from these research projects will provide new insight to the body of knowledge of environmental scanning.

Environmental scanning develops the organisation's ability to manage the intangible and tangible information assets of the corporation. In most enterprises the greatest part of the knowledge asset is never translated into digital form or documented. The valuable expertise of the employee who created the knowledge cannot be overestimated. The purpose is then to facilitate a human knowledge network that is supported by the necessary information technology.

The key differentiating factor between new generation organisations will be the ability to leverage the knowledge resources of the organisations. The *soft factors* will prove to be a greater problem for implementation than technology.

5.5 CONCLUSION

Although much is written about the environment and the need for environmental scanning systems, this is one of the first descriptive empirical research studies that used a sample survey. There is no doubt about the importance of environmental scanning and the benefits of its correct implementation and management.

The true benefit, though, is in the application and investment of the knowledge gained by scanning in the development and maintenance of long term, sustainable relationships with key stakeholders. Scanning should also be evolutionary in nature to be able to keep up with the constant change.

The purpose of this study was to assess the current status of environmental scanning in South African organisations. The relationship between environmental scanning and the corporate communicator was also addressed.

The following furthermore received attention:

- The importance of environmental scanning
- The fit between environmental scanning and strategy formulation process
- The difference between the macro and micro approach to environmental scanning
- How environmental scanning can be used in an organisation to deal with the constant changing environment
- Recommendations concerning the effective implementation of the scanning process
- Who should take the responsibility for environmental scanning.

In Chapter One, the problem and research questions were stated, and the conceptualisation, delimitations, assumptions, and importance of the study were discussed. An overview of the research strategy and methodology were also provided.

In Chapter Two, the theoretical framework of the study and the relationship with the systems theory and the information gap theory were discussed.

The development and importance of communication research received attention in Chapter Three. The communication professional and research were

addressed. The importance and measurement of relationships in communication, as well as knowledge management received attention.

Chapter Four focussed on environmental scanning. Environmental scanning is a process that begins with viewing the environment, proceeds with studying how the environment affects the organisation, and concludes with a rough outline of the future state of the environment. It is this prediction of the environment upon which top management should base their strategies for the organisation. However, too often plans are made considering only the current environment.

In the past, the focus was on the measurement of the success of the communication activity and not on the contribution that the communication function made towards the achievement and realisation of the company's goals and core business.

Measurement should provide hard data to show the effectiveness of the work. Measurement must be done to provide sound strategic support for decision making. Without measurement, there is no way to gauge effectiveness. Measurement offers an exciting opportunity for communicators to present results to senior management and help their organisations by identifying trends that can make their organisations more competitive in the changing marketplace.

The question of evaluation in public relations and debates around it are an indication of public relations' aspiration towards the status of a fully-fledged profession. In this context, evaluation represents the fundamental role that knowledge and expertise plays in professionalisation.

Where evaluation and measurement was done in the past, it focused on the technical aspects and not on the strategic level. Most evaluation research

focuses on the micro level. The strategic role of the communications professional is on meso and macro level.

If the contribution of corporate communication to the bottom line of the organisation wants to be determined, the focus should be on *relationships.* The unit of study should not only be the organisation, or the public, or the communication process. The unit of study should rather be the *relationships* between the organisations and their publics.

Corporate communication contributes to overall effectiveness when it helps reconcile the organisation's goals with the expectations of its strategic constituencies. This contribution has monetary value to the organisation. Corporate communication contributes to the effectiveness by building quality, long-term relationships with strategic constituencies.

This study's significance and applicability stems from a number of factors. It provides practitioners with an understanding of the fundamentals of environmental scanning and it will enable organisations to concentrate their resources in areas that will provide the best return for their efforts.

The cycle of the research activity is imperative in contributing to the achievement of organisational goals. If communication professionals do not want to be managed by people from other functions and report to other functions, the corporate communication function will have to do strategic research. This can be achieved by participating in the problem identification phase of strategic management and providing strategic information on stakeholders and other issues to top management. Environmental scanning is a valuable tool in this challenge.

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