

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/forecasters/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 important	Important	Very important	Not applicable
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	Continuous
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.

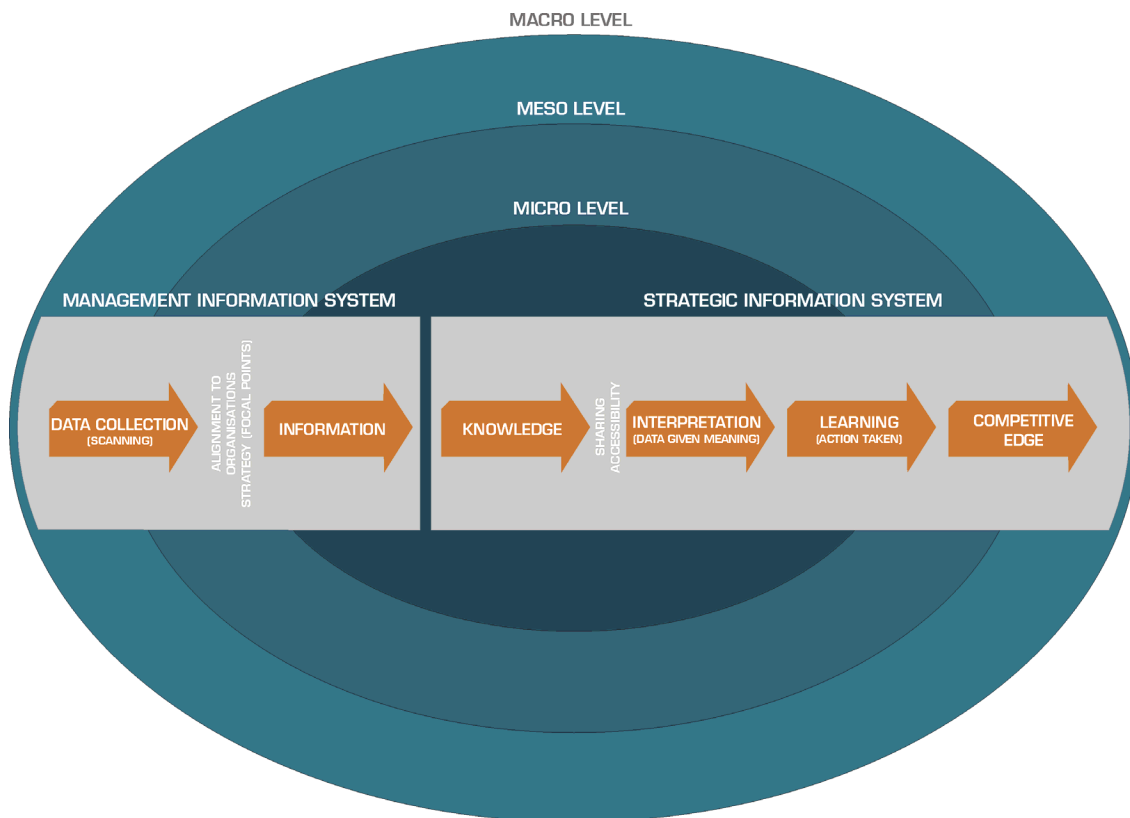
Environmental scanning is widely viewed as the first step in the process linking strategy and environment.

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 acquire 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 incumbent 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/Accessibility

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

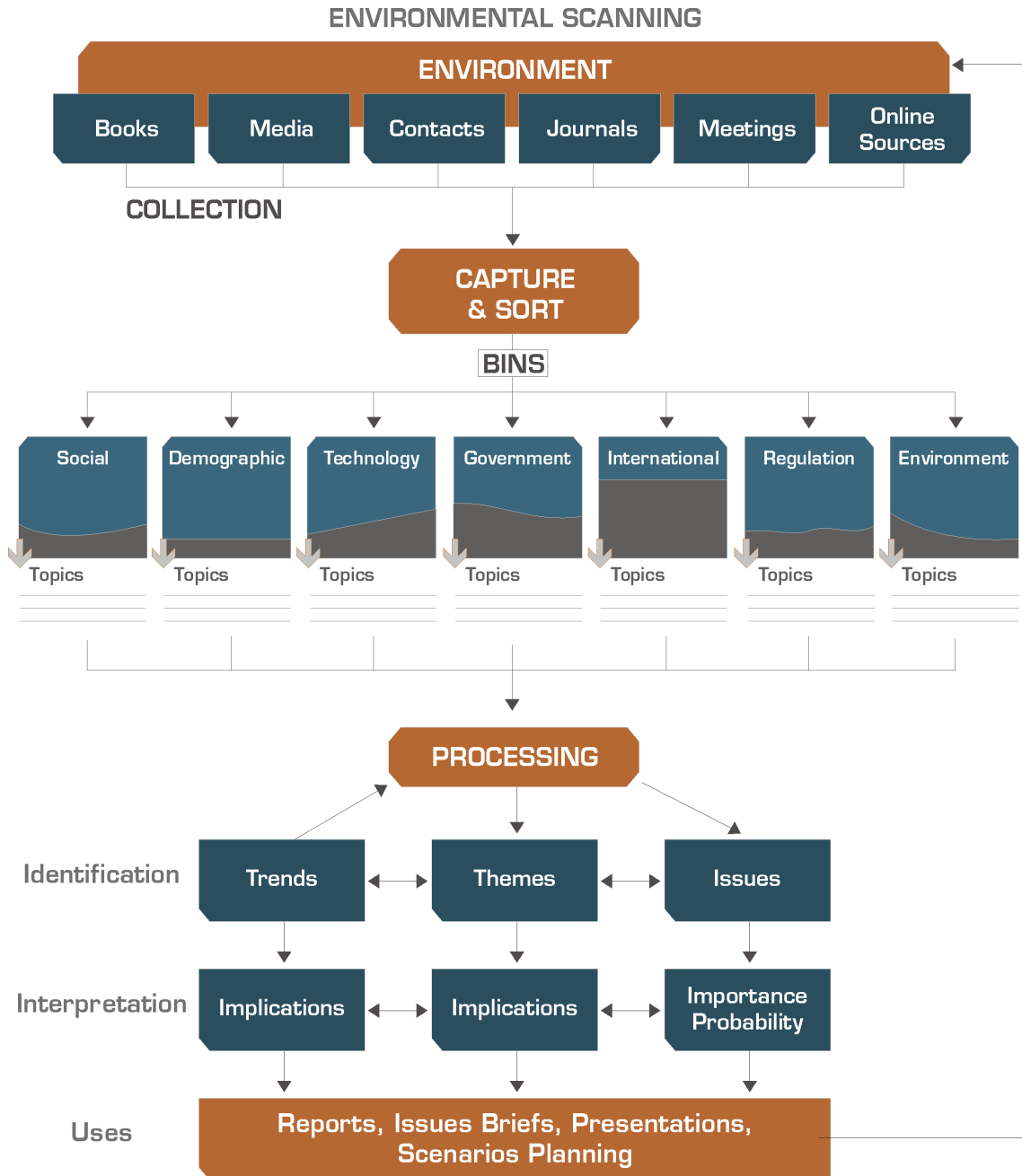
Learning is distinguished from interpretation by the concept of action. Learning involves a new response or action based on the interpretation. Organisational *learning* is defined as the process by which knowledge about action outcome relationships between the organisation and the environment is developed. 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 buy-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.