# Using environmental scanning to collect strategic information: A South African survey

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## Highlights

• Environmental scanning is difficult because there are numerous variables involved and the information available is considerable, unorganised, fragmented and unchecked.
• Competitive situation in South Africa is intense.
• Respondents cope above average with changes in the business environment.
• Few respondents have a formal environmental scanning system.

## Abstract

This article investigates the extent of environmental scanning activities at South African enterprises. The literature review discusses environmental scanning variables and steps in the environmental scanning process. In the empirical survey a questionnaire was e-mailed to the CEOs of 1000 South African enterprises, on 20 March 2015 asking them to return the questionnaire before 30 April and a response rate of 32.5% was achieved. Ninety five per cent of the respondents indicated that they regarded the competitive situation in South Africa as intense or very intense and most respondents were convinced that they coped above average with changes in the business environment. Only 30% of respondents had a separate environmental scanning department and only 27% had a formal environmental scanning system. Annual reports, market research reports, newspapers and trade journals were the most important secondary information sources, while customers, sales staff and suppliers were the most important primary information sources. All entities responding used competitor analysis, industry macro-environmental analysis and SWOT analysis to analyse environmental information.

## Keywords

Environmental scanning; Strategic information; South Africa

## 1. Introduction

"The reality is that information has no value, unless it is available immediately before you need it" (Grulke, 2000:15). Obtaining information on several variables of the

external environment facilitates alignment between an enterprise's business strategy and the environment (Karami, 2008:2). The environment in which an enterprise functions is complex and unstable. According to Albright (2004:39), enterprises today face unprecedented challenges to survive and environmental scanning can be used to gain understanding of the environment in which an enterprise functions. An enterprise has no influence on the external environment and it is not possible for it to monitor and control the variables in the external environment, but when the enterprise conducts environmental scanning, it has the opportunity to respond rapidly to challenges in a timely and effective manner. Babatunde and Adebisi (2012:26) mention the complex external environment and its impact on an enterprise. Enterprises in industries with higher levels of uncertainty therefore tend to increase the amount of environmental scanning. According to Shaikh (2010:2) the external environment constitutes all the factors outside an enterprise that offer opportunities or threats. Smit, Cronje, Brewis and Vrba (2011:65) postulate that the amount and accuracy of information available to management will determine the levels of uncertainty associated with the business environment.

When enterprises scan the environment, they are able to cope with uncertainties and to improve their competitive position (Bhardwaj & Kuman, 2014:40). Effective strategic planning can only happen if an enterprise conducts environmental scanning (Agbim, Oriarewo Zever, 2014:252). All managers intuitively scan the external environment and the majority prefer personal information sources to formal, impersonal ones (Choo, 2001:30). Choo (2001:34) mentions that in spite of the importance of environmental scanning in the strategic management process, theoretical understanding of the process remains limited.

The purpose of this article is to show the extent to which South African enterprises scan the external environment to assist them in future courses of action. The article attempts to answer questions such as whether managers in South Africa regard environmental scanning as an important activity, what sources of information they use and if they have an environmental scanning department in their enterprises.

## 2. Business environment in South Africa

The business environment in South Africa is unstable and unpredictable (Smit et al.,2011:71). South Africa is an exporter of minerals and South African enterprises need to compete in the global economy and need to face socio-economic challenges (Sewdass & Du Toit, 2014:85–86). In the global economy, the business environment in South Africa accommodates foreign investments and new trade (South Africa's competitive advantage in the developing world, 2014). Legislation affects the risks of doing business in South Africa and many businesses operate informally in South Africa (South African Local Government Association, 2014). China is South Africa's leading trading partner (South Africa's competitive advantage in the developing world, 2014) with India second (Fifth BRICS summit, 2013:19).

South African enterprises need to enter the global market, because the domestic market offers limited returns on investment (Du Toit & Strauss, 2010:27; Fatti & Du Toit, 2013:6). The enterprises that benefited from direct investment have demonstrated that they can compete internationally (Du Toit & Strauss, 2010:19). The African head office of many multinational enterprises is in South Africa (Du Toit

& Strauss, 2010:22) and Du Toit and Strauss found that is very important for South African enterprises (Du Toit & Straus, 2010:27). Competitiveness is a contemporary issue in South Africa and the competitiveness of South African enterprises increases every year (Smit et al., 2011:84).

The financial, insurance, real estate and business services industry has been globally recognised as being competitive compared to other BRICs countries (Fifth BRICS summit, 2013:21). The intensity of competition will differ from industry to industry. Environmental scanning is most prevalent in the South African pharmaceutical industry with 69.9% of enterprises conducting environmental scanning (Fatti & Du Toit, 2013:8).

South Africa is the biggest investor in Africa (Subramoney, 2010:1). Since South African enterprises have easy access to European and Asian markets, South African enterprises have an advantage over other enterprises from other African countries to invest in Africa. South African enterprises such as MTN, Shoprite, Standard Bank, South African Airways, Eskom Enterprises, Sun International, Vodacom and Sasol invest in Africa and they make a positive economic impact in these countries (Laverty, 2011:2).

## 3. Environmental scanning

According to Bhardwaj and Kumar (2014:40) environmental scanning is "the collection and use of information about events, trends, and relationships in an organization's external environment, the knowledge of which would assist management in planning the organization's future course of action." Lau, Liao, Wong, and Chiu (2012:1230) define environmental scanning as a process to gather and interpret information and using the results in the strategic planning process. Fleisher and Bensoussan (2003:269) describe the organisational environment as all the forces emanating or operating from outside the enterprise. "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" (Jansen Van Vuuren, 2002:107). The increasingly turbulent and complex external environment makes that management are not focused on the most important issues, they do not consider new forces in the environment and do not make a sincere attempt to understand the full range of threats and opportunities (Cheng, Kadir, & Bohari, 2014:440). The objective of environmental scanning is to identify changes that will influence an enterprise's activities.

Cancellier, Blageski, & Rossetto (2014:617) quote Aguilar (1967:19) who identified four modes of environmental scanning:

• Undirected viewing: general awareness of the environment and scanning broadly with no specific purpose, for example by reading a newspaper.
• Conditioned viewing: scanning for data that might influence the employee's work for example scanning for information in defined areas to track trends.
• Informal search: an active search for information to identify key issues and assess their impact but in a limited and unstructured manner.
• Formal search: a deliberate, planned attempt to gather specific information for specific purposes.

According to Hyde (2000:59) an enterprise should employ a combination of all four modes to do effective environmental scanning. The environmental scanning process comprises the following steps:

• Scan the environment for strategic indications, trends and events (Bhardwaj & Kumar, 2014: 42).
• Analyse the information to determine relevancy, influence and urgency and understand the interrelationships between trends (Fleisher & Bensoussan, 2003:280–283).
• Link the trends to issues (Fleisher & Bensoussan, 2003:280–283) and repackage the information by making projections of what may happen in future. Dispatch the information to top management so that they can assess the implications of trends and make the necessary decisions.

Formal environmental scanning enables the management of an enterprise to identify threats and demands in the environment in good time and, where necessary, to transform these into opportunities. Environmental scanning identifies emerging issues and potential pitfalls that may affect an enterprise's competitive advantage (Albright, 2004:40). Customer needs change rapidly in a changing environment and if an enterprise consistently monitors the external environment, it will become aware of unexpected changes that will affect an enterprise (Albright, 2004:41). Information that will have an impact on an enterprise should be identified to determine changes in the external environment (Ford, Huerta, Menachemi, & Babik, 2013:40) and by using organisational abilities, environmental uncertainty can be reduced (Rubĉić & Sekan, 2012:1133).

### 3.1. Socio-cultural, technological, economic, ecological, political situation (STEEP) analysis

External variables such as the political situation, economic situation, ecological situation, socio-cultural situation and technological situation (STEEP) should be monitored (Fleisher & Bensoussan, 2003:270). These variables are elaborated on further in ensuing paragraphs.

Demographic changes in the population such as age, income and education may increase or decrease the demand for an enterprise's products (Albright, 2004:42). Information should also be collected on cultural attitudes, literacy rates and social trends (Smit et al., 2011:71).

Technological changes increase the risk factor of an enterprise. New equipment can change production cycles (Albright, 2004:41) and technology can lead to product and process innovation (Fleisher & Bensoussan, 2003:272).

Local and international economies can change an enterprise and information of the economic situation can help an enterprise to prepare for the future. Issues that should be monitored are inflation rates, unemployment, exchange rates, gross national product, and economic growth rates, personal disposable income and purchasing habits of consumers (Smit et al., 2011:71). These aspects may influence the demand for products since consumption patterns are influenced by economic factors (Fleisher & Bensoussan, 2003:273).

The ecological environment refers to all natural resources of a geographical area (Nieuwenhuizen, Badenhorst-Weiss, Rossouw, Brevis, & Cant, 2009:26). This can be coal, gold, diamonds, water or natural forests. Because these natural resources are not unlimited, the impact an enterprise has on the environment, is important.

Political and legislative acts have an impact on enterprises. This may be changes in law and regulations and political and legal processes. The political and legal situation refers to government and regional services (Nieuwenhuizen et al., 2009: 27). In the global economy it is necessary to have a clear understanding of the political climate of the enterprise's country as well as countries the enterprise uses for imports or exports because they will have a direct impact on the activities and processes in an enterprise (Albright, 2004:42).

According to Babatunde and Adebisi (2012:26) managers spend almost one quarter of their time to scan the external environment and because environmental information is so complex and management do not have the time to monitor the environment formally, they should ask other employees to do the scanning (Rubĉić & Sekan, 2012:1136). According to the author, it is therefore recommendable that a separate department should be created within an enterprise to monitor the environment. Few enterprises worldwide have separate environmental scanning departments and environmental scanning is usually conducted informally (Babatunde & Adebisi, 2012:26). Since competition is very intense in South Africa, environmental scanning is usually the responsibility of competitive intelligence professionals or information managers (Fleisher & Bensoussan, 2003:5). In South Africa, competitive intelligence is a contemporary issue (Sewdass & Du Toit, 2014:185).

Innovative means should be used to gather environmental information (Sewdass & Du Toit, 2014:189) and an enterprise's business strategy is related to the sophistication of its environmental scanning activities (Choo, 2001:30). Choo (2001:33) quoted Murphy that environmental scanning led to greater employee involvement in strategy formulation but according to Fleisher & Bensoussan (2003:270) in many enterprises environmental scanning makes a small contribution to strategy formulation.

Accurate analysis of environmental information is the basis for anticipating the future (Ford et al., 2013:35). No standard processes should be used to analyse and interpret the information and creative methods should be used to make the information useful for top management (Sewdass & Du Toit, 2014:189). Top management needs insight—"a new look at a collection of facts" (Fleisher & Bensoussan, 2003:272). They need new perspectives which are not obvious.

Rubĉić & Sekan (2012:1139) mention that for environmental scanning to be effective, enterprises should promote that their managers and employees continuously learn about the scanning process to modernise it. An environmental scanning system optimises the use of environmental information and is a strategic resource for innovation and decision-making in an enterprise. Hyde (2000:46) quotes identified three characteristics of environmental scanning systems:

• The system should integrate all the information collected.

• Only relevant information that may have an impact on the enterprise should be included in the system.
• The system should be flexible and adaptive to changes in the environment.

According to Hyde (2000:45) an environmental scanning system should have internal analyses capabilities and the information collected should be analysed by an information manager before it is distributed to top management.

## 4. Empirical survey

### 4.1. Research methodology

The purpose of the empirical survey was to determine the prevalence of environmental scanning in South African enterprises. According to Babbie (2005:251), in an empirical survey the attitude of a sample (not the whole population) can be determined. A questionnaire was compiled containing 17 questions in total. The questionnaire was divided into three sections. Section A (Supplementary information) was limited to background or demographic information, while Section B (Supplementary information) explored the competitive situation in South Africa. Section C (Supplementary information) required respondents to comment on the environmental scanning situation in their enterprise (Appendix A of Supplementary information). The questionnaire was tested with five respondents. The sample frame for the survey was the Kompass Southern Africa database, which lists 13,000 enterprises. This database contain 1221 international enterprises with offices in South Africa. Only enterprises with more than 200 employees were included in the sample because it was accepted that only large enterprises would have the infrastructure to manage environmental information effectively by creating a separate environmental scanning departments (Du Toit & Strauss, 2010:28; Fatti & Du Toit, 2013:9). Enterprises in South Africa are regarded as large enterprises if they have more than 200 employees (Nieuwenhuizen et al., 2009:10). A sample of 1000 enterprises was randomly drawn from the Kompass database. The questionnaire was e-mailed to the CEOs of the 1000 enterprises on 20 March 2015, asking them to complete the questionnaire within three weeks. Anonymity was guaranteed because according to Babbie (2005:145), respondents will be willing to provide confidential information if anonymity is guaranteed. Follow-up procedures were conducted on a weekly basis (e-mail reminders were sent weekly to all the CEOs of the 1000 enterprises) in order to emphasise the importance of completing the questionnaire. All the questions were close-ended; options were provided and respondents were requested to make a selection (Babbie, 2005:127). From the 1000 respondents, 325 completed questionnaires were received, indicating a response rate of 32.5%. The responses indicated enterprise-wide environmental scanning and not the CEO's personal effort. Statistical Package for Social Sciences (SPSS) software was used to analyse the data. When the analysis was completed, the data was placed into spreadsheets with statistical graphs and tables.

### 4.2. Findings

The credibility of the research was measured by the Cronbach Alpha Coefficient. An overall coefficient of 77, 2% was calculated for the results obtained and this is considered to be in the range of scores considered reliable.

### 4.2.1. Section A: background information (refer Supplementary information)

### 4.2.1.1. What is your gender? (*N* = 325)

More than two-thirds of the respondents were male (70% or 228), while one-third were female (30% or 97).

### 4.2.1.2. Your age in years? (*N* = 325)

Forty per cent (130) of the respondents are between 50 and 59 years old, while 25% (81) of the respondents are between 30 and 39 years.

### 4.2.1.3. What is your highest educational qualification? (*N* = 325)

The respondents are well educated, with 30% (98) possessing an honours degree, 20% (65) a master's degree, and 10% (32) a doctoral degree.

### 4.2.1.4. How long in complete years have you been employed in your enterprise? (*N* = 325)

The majority of the respondents (55%—179) have been employed in the enterprise for ten years or more. One quarter of the respondents (25% or 61) have been employed in the enterprise for less than five years.

### 4.2.1.5. Number of employees in your enterprise (*N* = 325)

Half of the respondents (50% or 163) have more than 500 employees in their enterprises.

### 4.2.1.6. Industry (*N* = 325)

Fig. 1 indicates the industries where the respondents are employed. As indicated in Fig. 1, 27% (68) of the respondents are employed in the manufacturing industry.
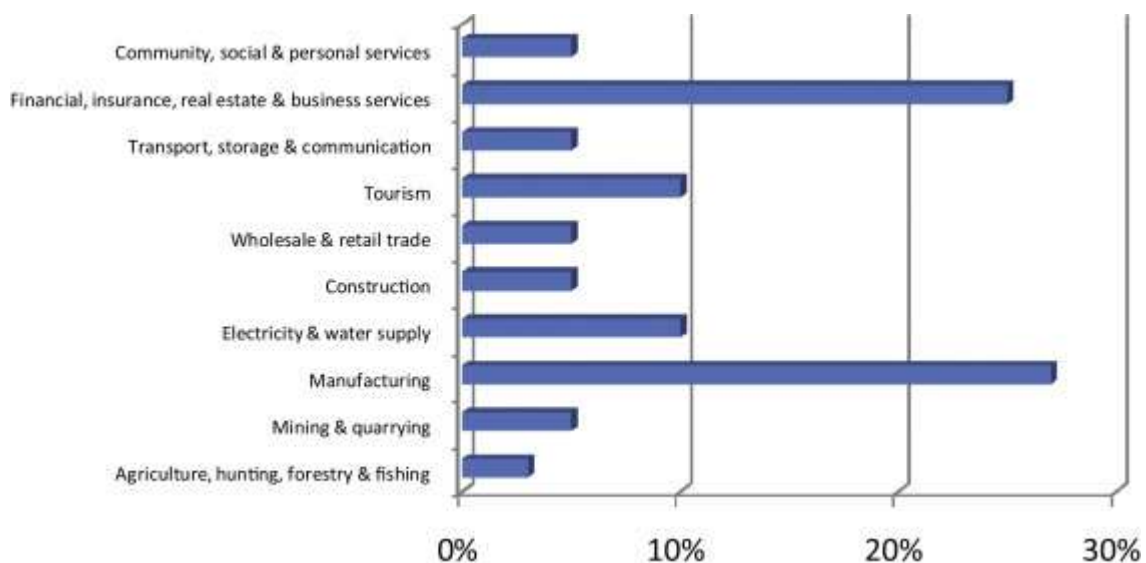


**Fig. 1.** Industries of employment.

### 4.2.2. Competitive situation

### 4.2.2.1. How intense do you believe is competition in your business environment? (*N* = 325)

According to Fig. 2, nearly all respondents (95% or 309) regard the competitive situation in South Africa as intense or very intense. This finding correlates with the findings of Hyde (2000:108) that all the respondents of financial enterprises that he interviewed described the environment as complex, with a rapid rate of change, and Begg (2007:130) who found that 58.9% of respondents regarded competition as very intense, while 41.1% regarded competition as intense.
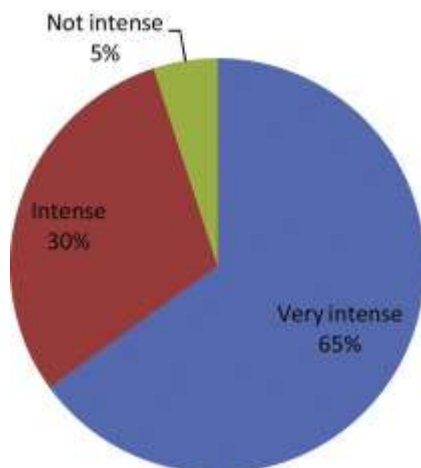


**Fig. 2.** Intensity of competitive situation.

### 4.2.2.2. In your opinion, how well does your enterprise cope with changes in the business environment? (*N* = 325)

The majority of the respondents (55%—179) are convinced that they cope above average with changes in the business environment (i.e. they cope very well). Only 5% (16) of the respondents indicated that they coped below average with changes. This is an indication that the respondents do have strategies to cope with the changing business environment. This finding correlates with the finding of Begg (2007:129) that 48.6% of respondents cope above average with changes in the business environment and 51.4% cope on an average level.

### 4.2.3. Gaining competitiveness through environmental scanning

### 4.2.3.1. Does your enterprise have a formal strategic planning process? (*N* = 325)

All respondents indicated that they do follow a formal strategic planning process and this finding correlates with the finding of Hyde (2000:105) that all the financial enterprises he interviewed indicated that they engaged in strategic planning.

### 4.2.3.2. Does your enterprise have a separate environmental scanning department? (*N* = 325)

Only 30% (98) of the respondents indicated that they did have a separate environmental scanning department.

### 4.2.3.3. If yes, how long has this division been in existence in your enterprise? (*N* = 325)

In Forty-eight per cent (48) of the enterprises who indicated that they do have a separate environmental scanning department, the department had existed for less than five years. In 40% (39) of the enterprises, the department had existed for between five and ten years and in 12% (13) of these enterprises the department had existed for more than ten years.

### 4.2.3.4. Please indicate to what extent you agree with the following statements about your enterprise's environmental scanning practices? (*N* = 325)

Table 1 indicates the environmental scanning practices of the respondents.

**Table 1.** Environmental scanning practices (the modal category for each option is shaded).

| | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | (%) | Number | (%) | Number | (%) | Number | (%) | Number | (%) | Number |
| In our enterprise environmental scanning is conducted informally by managers | 0 | 0 | 15 | 48 | 3 | 10 | 27 | 88 | 55 | 179 |
| In our enterprise we do have a formal environmental scanning system | 0 | 0 | 63 | 204 | 10 | 33 | 17 | 55 | 10 | 33 |
| Our enterprise makes use of environmental scanning for decision-making | 0 | 0 | 5 | 16 | 0 | 0 | 55 | 179 | 40 | 130 |
| Our managers' environmental scanning needs are communicated to all employees | 15 | 48 | 25 | 81 | 31 | 101 | 12 | 39 | 18 | 55 |
| Currently our enterprise is satisfied with the way we conduct environmental scanning | 29 | 94 | 24 | 78 | 8 | 26 | 26 | 85 | 13 | 42 |
| Our enterprise would rate its environmental scanning function as highly effective (proactive and able to shape the future of the enterprise) | 18 | 59 | 40 | 130 | 15 | 48 | 17 | 55 | 10 | 33 |
| Our enterprise believes | 35 | 114 | 45 | 146 | 20 | 65 | 0 | 0 | 0 | 0 |

| | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | (%) | Number | (%) | Number | (%) | Number | (%) | Number | (%) | Number |
| **there are no perceived benefits from environmental scanning** | | | | | | | | | | |
| **Our enterprise analyses information on competitors and has up-to-date profiles of them** | 30 | 97 | 10 | 33 | 10 | 33 | 25 | 81 | 25 | 81 |
| **Our enterprise is up to date with emerging technologies and the benefits/features of these technologies** | 17 | 55 | 18 | 59 | 8 | 26 | 40 | 130 | 17 | 55 |
| **Our enterprise is cognisant of new and pending government legislative trends that affect our enterprise** | 0 | 0 | 0 | 0 | 5 | 16 | 55 | 179 | 40 | 130 |
| **Managers in our enterprise use environmental scanning for strategic planning** | 5 | 16 | 10 | 33 | 5 | 16 | 40 | 130 | 40 | 130 |
| **Environmental scanning is a continuous activity in our enterprise** | 10 | 33 | 8 | 26 | 8 | 26 | 55 | 179 | 19 | 61 |
| **In our enterprise environmental scanning leads to competitive advantage and innovation** | 5 | 16 | 29 | 94 | 31 | 101 | 20 | 65 | 15 | 48 |
| **In our enterprise environmental scanning alerts managers to issues not currently on their agenda** | 0 | 0 | 5 | 16 | 10 | 33 | 40 | 130 | 45 | 146 |
| **Our enterprise has a good sense of its own strengths and weaknesses compared to its competition** | 5 | 16 | 8 | 26 | 5 | 16 | 40 | 130 | 42 | 137 |
| **In our enterprise staff members on all levels regularly report back on competitor actions** | 20 | 65 | 40 | 130 | 10 | 33 | 15 | 48 | 15 | 48 |

### 4.2.3.4.1. In our enterprise environmental scanning is conducted informally by managers (*N* = 325) (*N* = 325)

Fifty percent (163) of the respondents indicated that in their enterprises environmental scanning was conducted informally by managers (see Table 1). Du Toit (1998:210) found that 29.1% of manufacturing enterprises did informal environmental scanning.

### 4.2.3.4.2. In our enterprise we have a formal environmental scanning system (*N* = 325)

In 73% (237) enterprises there is no formal environmental scanning system. In 50% (162) of the enterprises there is a formal environmental scanning function and only 27% (88) of the respondents do have a formal environmental scanning system. This correlates with the finding of Du Toit (1998:210) that only 20.3% of South African manufacturing enterprises had formal environmental scanning systems.

### 4.2.3.4.3. Our enterprise makes use of environmental scanning for decision-making (*N* = 325)

An overwhelming 95% (293) of the respondents made use of environmental scanning information when they made a decision, which was an indication that the respondents did use environmental information for strategic planning. Only 5% (16 respondents) did not use environmental scanning for decision-making.

### 4.2.3.4.4. Our managers' environmental scanning needs are communicated to all employees (*N* = 325)

Seventy per cent (231) of the respondents indicated that other employees in the enterprise are not aware of their environmental scanning needs. Only 30% (94) of the respondents indicated that managers' environmental scanning needs were communicated to all employees.

### 4.2.3.4.5. Currently our enterprise is satisfied with the way we conduct environmental scanning (*N* = 325)

Fifty-three percent (172 respondents) are not satisfied with the way they conduct environmental scanning. Thirty-nine per cent (127) of the respondents are satisfied with the way they conduct environmental scanning while 8% (26) of the respondents are neutral.

### 4.2.3.4.6. Our enterprise would rate its environmental scanning function as highly effective (proactive and able to shape the future of the enterprise) (*N* = 325)

Fifty-eight per cent (189) of the respondents do not rate their environmental scanning function as highly effective. Twenty-seven percent (88) of the respondents rated their environmental scanning function as highly effective (*probably the respondents with a formal environmental scanning system who capture all the data collected*) while 15% (48) of the respondents is neutral on this aspect.

### 4.2.3.4.7. Our enterprise believes that there are no perceived benefits from environmental scanning (*N* = 325)

No respondents agreed with this statement. Eighty per cent (189) of respondents disagree or strongly disagree with this statement. Twenty per cent (65 respondents) were neutral.

### 4.2.3.4.8. Our enterprise analyses information on competitors and has up-to-date profiles of them (*N* = 325)

Fifty percent (163) of the respondents analysed information on competitors and their enterprises had up-to-date profiles of competitors, but 40% (130) of the respondents do not analyse information on competitors and do not have up-to-date profiles of them.

### 4.2.3.4.9. Our enterprise is up to date with emerging technologies and the benefits/features of these technologies (*N* = 325)

While 57% (185) of the respondents' enterprises were up to date with emerging technologies, 35% (114) of the respondents do not collect information on emerging technologies.

### 4.2.3.4.10. Our enterprise is cognisant of new and pending government legislative trends that affect our enterprise (*N* = 325)

An overwhelming majority of the respondents (95% or 309) were cognisant of new government legislation.

### 4.2.3.4.11. Managers in our enterprise use environmental scanning for strategic planning (*N* = 325)

An overwhelming 80% (260) of the respondents indicated that they used environmental scanning for strategic planning. However, 15% of the respondents (49) do not use environmental scanning for strategic planning.

### 4.2.3.4.12. Environmental scanning is a continuous activity in our enterprise (*N* = 325)

For 74% (240) of the respondents, environmental scanning was a continuous activity in their enterprises but for 18% (59 respondents) of the enterprises environmental scanning is not a continuous activity.

### 4.2.3.4.13. In our enterprise environmental scanning leads to competitive advantage and innovation (*N* = 325)

While 35% (113 respondents) indicated their belief that environmental scanning adds to competitive advantage and innovation in their enterprises, nearly the same number (34% or 110 respondents) disagreed with this statement. Thirty-one per cent (101 respondents) indicated neutrality concerning this statement about competitive advantage and innovation.

**4.2.3.4.14. In our enterprise environmental scanning alerts managers to issues not currently on their agenda (*N* = 325)**

An overwhelming majority of the respondents (85% or 276) indicated that environmental scanning alerted them to new issues not on their agenda, while 5% (16) of the respondents disagreed with this statement.

**4.2.3.4.15. Our enterprise has a good sense of its own strengths and weaknesses compared to its competition (*N* = 325)**

An overwhelming 82% (267) of the respondents indicated that they had a good sense of their enterprises' strengths and weaknesses.

**4.2.3.4.16. In our enterprise staff members on all levels regularly report back on competitor actions (*N* = 325)**

Only 30% (96) of the respondents' employees did report back on competitor actions which indicated that these enterprises also conducted competitive intelligence in their enterprises and that the enterprises are managed to compete in the global economy.

**4.2.3.5. How often do you monitor the following environments? (*N* = 325)**

According to Fig. 3, in terms of keeping abreast with changes in the socio-cultural environment, 40% (130) of the respondents' only monitor this environment on a quarterly or yearly basis. Twenty-five per cent (81) monitor this environment weekly, while 20% (65) of the respondents monitor this environment daily. *The monitoring of this environment is important, since it makes an enterprise aware of trends relating to customer preferences and it seems obvious that enterprises will be influenced by the socio-cultural environment.*
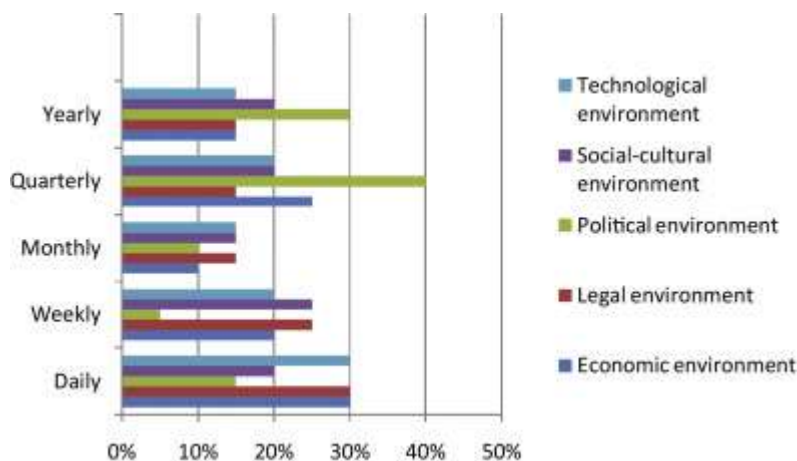


**Fig. 3.** Environmental scanning variables monitored.

The technological environment is monitored by 30% (97) of the respondents daily, and 20% (65) of the respondents weekly. *Since new technological developments take place daily and could be a threat to enterprises, it makes sense to monitor this environment regularly.*

Fig. 3 depicts that 30% (97) of the respondents monitor the economic environment on a daily basis, while 25% (81) of the respondents only monitor the economic environment on a quarterly basis and 15% (48) on a yearly basis. *All enterprises are influenced by the economic environment and they should monitor the economic environment on a daily or weekly basis.*

With regard to the legal environment, forty per cent (130) of the respondents monitor it quarterly and 30% (97) monitor it yearly. Only 15% (48) of the respondents monitor it daily. According to Begg (2007:133), it is essential that enterprises monitor the legal environment on a monthly or quarterly basis, since there are many regulations in South Africa that have an impact on enterprises.

The majority of respondents (50% or 163) monitor the political environment yearly, while only 15% (49) of the respondents monitor it on a daily or weekly basis. *Since South Africa has a stable political situation, the political situation is seldom altered.*

### 4.2.3.6. Which of the following secondary sources of information does your enterprise use to assess the competitive environment? (*N* = 325)

According to Fig. 4, corporate annual/quarterly reports, demographical data, market research reports, newspapers, research reports, survey summaries and trade journals are the most important secondary information sources used by all the respondents. Newspapers (55% or 179), trade journals (20% or 65), market research reports (19% or 62) and industry analyst reports (18% or 59) are the most important sources consulted by the respondents on a daily basis, while market research reports (55% or 179), newspapers (45% or 146), and trade journals (35% or 114) are the most important sources consulted by the respondents on a weekly basis. Interestingly, 24% (78) of the respondents never consulted promotional material and 17% (55) of the respondents never consulted sales forecasts.
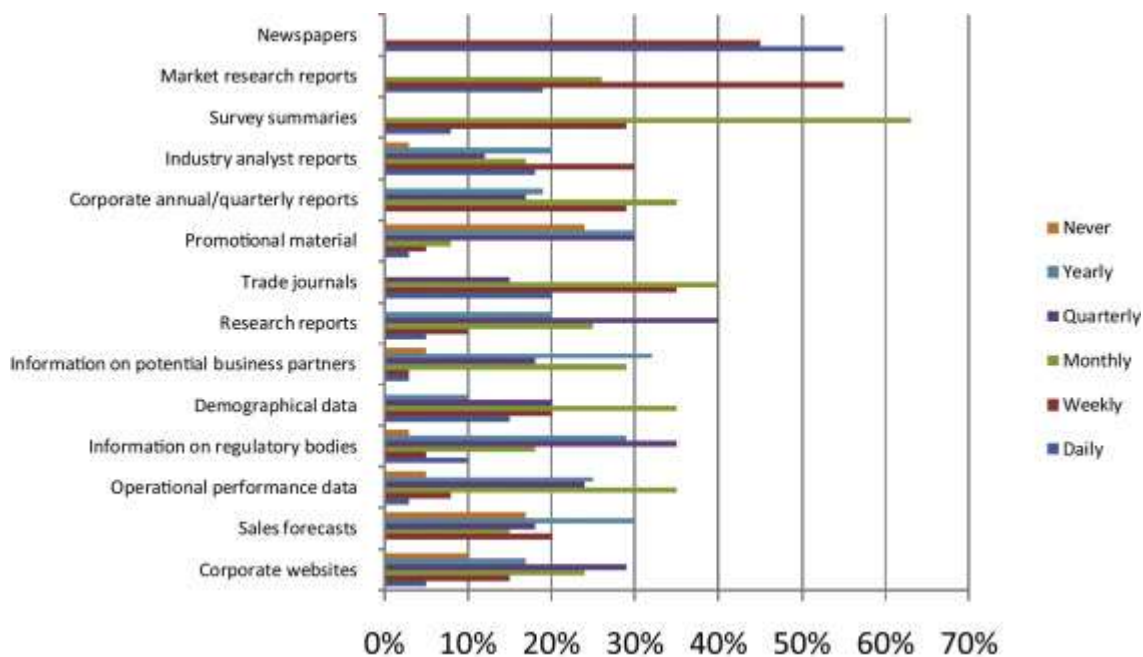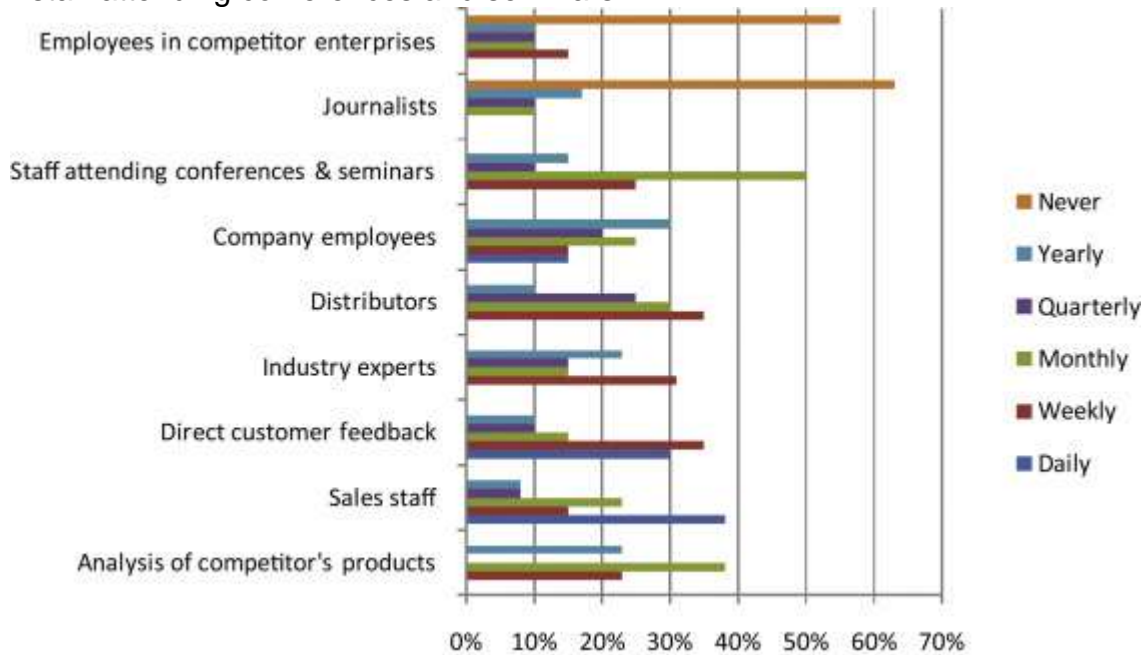


**Fig. 4.** Secondary information sources used.

**4.2.3.7. Which of the following primary sources (human interaction) of information does your enterprise use to assess the competitive environment? (*N* = 325)**

Fig. 5 depicts that the most important primary information sources are:

• customers
• employees in the enterprise (especially sales staff)
• suppliers
• staff attending conferences and seminars.



**Fig. 5.** Primary information sources used.

Sixty-five per cent (211) of the respondents got customer feedback on a daily or weekly basis, while journalists are not an important information source and 63% (203) of the respondents never consulted journalists. This is in contrast with the fact that 55% (179) of the respondents consulted newspapers on a daily basis. Employees in competitor enterprises are not an important information source and 55% (179) never use these enterprises as an information source. Thirty-five per cent (114) of the respondents reported that they consulted distributors on a weekly basis.

**4.2.3.8. Which of the following analytical methods are used within your enterprise to analyse environmental information collected? (*N* = 325)**

Respondents used various analytical methods to analyse the environmental information collected (see Fig. 6).
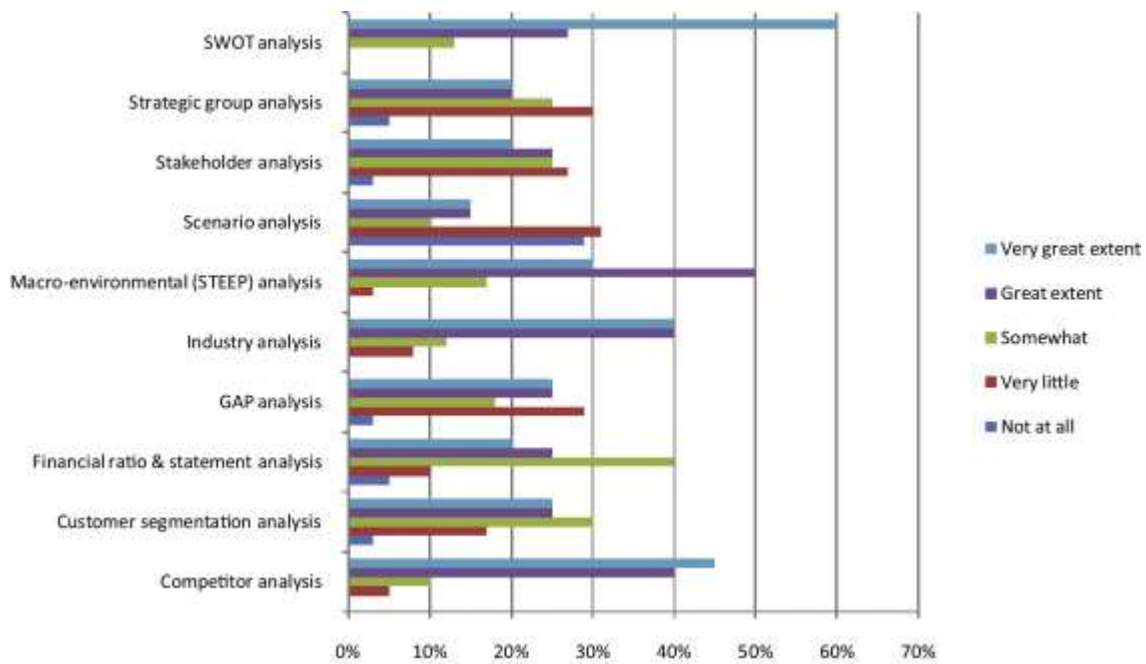
**Fig. 6.** Analytical methods used to analyse environmental information.

All respondents used competitor analysis, industry analysis, macro-environmental (STEEP) analysis and SWOT analysis. SWOT analysis (87% or 283), competitor analysis (85% or 276), industry analysis (80% or 260) and macro-environmental analysis (80% or 260) are used to a great and very great extent by the respondents. *This is an indication that the respondents do use environmental scanning for strategic planning in their enterprises.* Sixty percent of the respondents do not use scenario planning or use it very seldom and this is a matter of concern.

## 5. Conclusions

Environmental scanning is a starting point for strategic planning (Nieuwenhuizen et al., 2009:27). It is difficult to conduct environmental scanning because there are numerous variables involved and the information available is considerable, unorganised, fragmented and unchecked. To assume that the future will be like the present increases the risk of failure and the people responsible for environmental scanning in an enterprise should have knowledge of forecasting techniques such as scenario writing and impact analysis to explore alternatives systematically. In this way they can provide a coherent picture to top management of alternative future environments. Few respondents in this survey used scenario planning in the environmental scanning process. The purpose of environmental scanning is to plan for the future (Bhardwaj & Kumar, 2014:40) and if the respondents do not use scenario planning in their enterprises, it will be very difficult to take decisions for future action.

The survey showed that the competitive situation in South Africa is intense. The respondents felt that they cope well with changes in the business environment. All respondents indicated that they practice strategic planning but few respondents have a separate environmental scanning department or a formal environmental scanning system in their enterprises. This means that relatively little formal environmental

scanning has been undertaken by South African enterprises and that the situation has not changed since 1998 (Begg, 2007).

The empirical survey indicated that large amounts of money are already being spent on the processing and retrieval of environmental information. However, this does not mean that the quality of environmental systems in South Africa is adequate, since only 28% of the respondents indicated that they had a formal environmental scanning system. To compete successfully in the global economy will mean that South African enterprises should increase their environmental scanning activities; for this the availability of environmental information is a prerequisite. Environmental scanning is not a new business tool that will be a passing fad. It is simply a systematic process of determining the information needs of managers, making sure that the right information is collected and analysed and applying the results in the strategic planning process. It is very important that South African managers develop the ability to anticipate changes, as it takes time to adapt to a changing environment.

## Recommendations

The establishment of a formal environmental scanning function in South African enterprises can contribute significantly towards strategic planning in enterprises. An obvious limitation of the study is that it utilised a small sample of enterprises in South Africa and the findings cannot be generalised beyond the sample that took part in the survey. More comprehensive research is still needed to clarify all the dimensions of environmental scanning in South Africa. Key to formalising environmental scanning in institutions/organisations/enterprises/corporations is to evaluate and interpret the future in a systematic manner, understanding the variables that are shaping the future and to implement alternative strategies. This is an area for future research. Other options for future research are research concerning the relationship between environmental scanning and organisational performance and research concerning how globalisation has increased environmental uncertainty and how this affects South African enterprises.

With reference to the quotation by Grulke (2000:15) in the introduction to this paper, this quotation can now be rephrased to "the reality is that information collected during environmental scanning has value since it provides an enterprise with appropriate, timeous information to manage changes in the external environment."

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# 1. Appendix A. Supplementary data

**ENVIRONMENTAL SCANNING QUESTIONNAIRE**
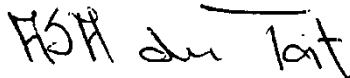
**Dear Sir/Madam**

Environmental scanning is an important aspect of strategic management. Enterprises in South Africa have faced increased environmental uncertainty and increasingly there is a need to compete in the global economy and to conduct environmental scanning.

You are hereby invited to participate in this environmental scanning survey to compare environmental scanning activities in South Africa. Your responses to the survey will be confidential and the survey takes about 25 to 30 minutes to complete. **Please return the questionnaire before 30 April 2015.**

If you have any questions relating to the survey, please contact the researcher, Prof Adeline Du Toit (adeline.dutoit@up.ac.za).

Thank you for taking time to complete the survey!

Prof Adeline Du Toit

**SECTION A – BACKGROUND INFORMATION**

**1) Your gender**

| Male | 1 |
|---|---|
| Female | 2 |

**2) Your age in years?**

| 18 – 29 | 1 |
|---|---|
| 30 – 39 | 2 |
| 40 – 49 | 3 |
| 50 – 59 | 4 |
| 60+ | 5 |

**3) What is your highest educational qualification?**

| Less than Grade 12 (Not completed school) | 1 |
|---|---|
| Grade 12 (Completed school) | 2 |
| Post school diploma or certificate | 3 |
| Bachelor's degree | 4 |
| Honours degree or other 4-year degree | 5 |
| Masters degree | 6 |
| Doctoral degree | 7 |

**4) How long in complete years have you been employed in your enterprise?**

| Less than a year | 1 |
|---|---|
| 1 – 5 years | 2 |
| 6 – 9 years | 3 |
| 10 years or more | 4 |

**5) Number of employees in your enterprise**

| 200 – 350 | 3 |
|---|---|
| 350 – 500 | 4 |
| 500+ | 5 |

**6) Industry**

| Agriculture, hunting, forestry and fishing industry | 1 |
|---|---|
| Mining and quarrying industry | 2 |
| Manufacturing industry | 3 |
| Electricity and water supply industry | 4 |
| Construction industry | 5 |
| Wholesale and retail trade industry | 6 |
| Tourism industry | 7 |
| Transport, storage and communication industry | 8 |
| Financial, insurance, real estate and business services | 9 |
| Community, social and personal services | 10 |

## SECTION B: COMPETITIVE SITUATION

**7) How intense do you believe is competition in your business environment?**

| Very intense | 1 |
|---|---|
| Intense | 2 |
| Not intense | 3 |

**8) In your opinion, how well does your enterprise cope with changes in the business environment?**

| Above average (i.e. they cope very well) | 1 |
|---|---|
| Average (i.e. they cope) | 2 |
| Below average (i.e. they do not cope well) | 3 |
| We/I drive the change (i.e. leaders in innovation) | 4 |

## SECTION C – GAINING COMPETITIVENESS THROUGH ENVIRONMENTAL SCANNING

**9) Does your enterprise have a formal strategic planning process?**

| Yes | 1 |
|---|---|
| No | 2 |

**10) Does your enterprise have a separate environmental scanning department?**

| Yes | 1 |
|---|---|
| No | 2 |

**11) If yes, how long has this division been in existence in your enterprise?**

| Less than 5 years | 1 |
|---|---|
| 5 - 10 years | 2 |
| More than 10 years | 3 |

**12) Please indicate to what extent you agree with the following statements about your enterprise's environmental scanning practices.**

| | | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---|---|---|---|---|---|---|
| **12.1** | In our enterprise environmental scanning is conducted informally by managers | | | | | |
| **12.2** | In our enterprise we do have a formal environmental scanning system. | | | | | |
| **12.3** | Our enterprise makes use of environmental scanning for decision-making. | | | | | |
| **12.4** | Our managers' environmental scanning needs are communicated to all employees. | | | | | |
| **12.5** | Currently our enterprise is satisfied with the way we conduct environmental scanning. | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **12.6** | Our enterprise would rate its environmental scanning function as highly effective (proactive and able to shape the future of the enterprise). | | | | | |
| **12.7** | Our enterprise believes there are not perceived benefits from environmental scanning | | | | | |
| **12.8** | Our enterprise analyses information on competitors and have up to date profiles of them. | | | | | |
| **12.9** | Our enterprise is up to date with emerging technologies and the benefits/features of these technologies. | | | | | |
| **12.10** | Our enterprise is cognisant of new and pending government legislative trends that impact our enterprise. | | | | | |
| **12.11** | Managers in our enterprise use environmental scanning for strategic planning. | | | | | |
| **12.12** | Environmental scanning is a continuous activity in our enterprise. | | | | | |
| **12.13** | In our enterprise environmental scanning leads to competitive advantage and innovation. | | | | | |
| **12.14** | In our enterprise environmental scanning alerts managers to issues not currently on their agenda. | | | | | |
| **12.15** | Our enterprise has a good sense of its own strengths and weaknesses compared to its competition. | | | | | |
| **12.16** | In our enterprise staff members on all levels regularly report back on competitor actions. | | | | | |

**13) How often do you monitor the following environments?**

| | | Daily | Weekly | Monthly | Quarterly | Yearly | Never |
|---|---|---|---|---|---|---|---|
| **13.1** | Economic | | | | | | |
| **13.2** | Industry/market situation | | | | | | |
| **13.3** | Legal | | | | | | |
| **13.4** | Political | | | | | | |
| **13.5** | Socio-cultural | | | | | | |
| **13.6** | Technological | | | | | | |

**14) Which of the following secondary sources of information does your enterprise use to assess the competitive environment?**

| | | Daily | Weekly | Monthly | Quarterly | Yearly | Never |
|---|---|---|---|---|---|---|---|
| **14.1** | Corporate Websites | | | | | | |
| **14.2** | Sales forecasts | | | | | | |
| **14.3** | Operational performance data | | | | | | |
| **14.4** | Internal financial information | | | | | | |
| **14.5** | Information on regulatory bodies | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **14.6** | Demographical data | | | | | | |
| **14.7** | Information on potential business partners | | | | | | |
| **14.8** | Research Reports | | | | | | |
| **14.9** | Trade Journals | | | | | | |
| **14.10** | Promotional Material | | | | | | |
| **14.11** | Corporate Annual/Quarterly Reports | | | | | | |
| **14.12** | Industry analyst reports | | | | | | |
| **14.13** | Survey summaries | | | | | | |
| **14.14** | Market research reports | | | | | | |
| **14.15** | Newspapers | | | | | | |
| **14.16** | Other (please elaborate) | | | | | | |

**15) Which of the following primary sources (human interaction) of information does your enterprise use to assess the competitive environment?**

| | | Daily | Weekly | Monthly | Quarterly | Yearly | Never |
|---|---|---|---|---|---|---|---|
| **15.1** | Company employees | | | | | | |
| **15.2** | Suppliers | | | | | | |
| **15.3** | Industry experts | | | | | | |
| **15.4** | Direct customer feedback | | | | | | |
| **15.5** | Sales Staff | | | | | | |
| **15.6** | Analysis of competitor's products | | | | | | |
| **15.7** | Distributors | | | | | | |
| **15.8** | Staff joining from competitors | | | | | | |
| **15.9** | Members of trade and industry associations | | | | | | |
| **15.10** | Employees in competitor enterprises | | | | | | |
| **15.11** | Journalists | | | | | | |
| **15.12** | Staff attending conferences and seminars | | | | | | |
| **15.13** | Other (please elaborate) | | | | | | |
| | | | | | | | |

**16) Which of the following analytical methods are used within your enterprise to analyse environmental information collected?**

|      |                                      | Not at all | Very little | Somewhat | Great extent | Very great extent |
|------|--------------------------------------|------------|-------------|----------|--------------|-------------------|
| 16.1 | Competitor Analysis                  |            |             |          |              |                   |
| 16.2 | Customer Segmentation Analysis       |            |             |          |              |                   |
| 16.3 | Financial Analysis and Valuation     |            |             |          |              |                   |
| 16.4 | GAP Analysis                         |            |             |          |              |                   |
| 16.5 | Industry Analysis                    |            |             |          |              |                   |
| 16.6 | Macro-environmental (STEEP) Analysis |            |             |          |              |                   |
| 16.7 | Scenario Analysis                    |            |             |          |              |                   |
| 16.8 | Stakeholder Analysis                 |            |             |          |              |                   |
| 16.9 | Strategic Group Analysis             |            |             |          |              |                   |
| 16.10| SWOT Analysis                        |            |             |          |              |                   |
| 16.11| Other (please elaborate below)       |            |             |          |              |                   |

**Thank you for your time!**