Creating Strategic Value through Executive Information Systems: an Exploratory Study

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Abstract: Over the past few years, information technology has grown so rapidly that businesses had to adjust very quickly to keep abreast of fast growing technologies and international trends. An increasing number of South African companies listed on the Johannesburg Stock Exchange (JSE) have implemented Executive Information Systems (EISs) that have resulted in the widespread use of computers in companies. Users of EISs need systems that provide them with access to diverse types of information in order to take decisions, to solve problems and to compete with competitors. This article discusses whether South African companies create strategic value through the use of EISs. The strategic value of the business is explained as an advantage to improve businesses' performances firstly, by gains in profitability and financial strength and secondly, gains in the businesses' competitive strength and market standing. Executives and top management need to be aware of the opportunities available to them by using information technology as a business tool to analyse their businesses' performance and competitiveness. This study is an exploratory study and the research method is quantitative of nature. A structured questionnaire was designed and was sent to 334 listed JSE companies in order to investigate the existence of an EIS, the gathering, selecting and use of information in companies in order to make decisions and to solve problems. Many businesses have chosen EIS technology to provide relevant and accurate information to top management and executives. Currently the EIS provides information that is only available to executives and top management, but the need exists to expand EISs to other users in the business. The research questions investigated in this study are to establish what EISs offer to fulfil the needs of users and to determine the impact on creating strategic value within the business in order to keep pace with on-going changes in technology. In addressing these problems the existence of EISs was investigated to debate, express, and understand the role and use of an EIS and resulted in creating strategic value for businesses. The value of the study explains the vital importance of executives' influence towards the adoption, commitment and use of EISs at strategic management levels, creating and adding strategic value in companies. The findings of the study add to the current understanding and awareness of EISs in listed JSE companies and therefore create an environment in which the business can enhance sustainability and strategic competitiveness. Responses were favourable since respondents requested a report on the outcome of the results as they expressed an interest in the underlying motivation of the study and how their company compares with their competitors in the industry. Conclusions drawn from the results are that EISs need to incorporate all the unmet needs of users in order for EISs to add strategic value and to be used as effective business tools in companies.

Keywords: competitive advantage, executive information system, information technology, performance, strategic value, sustainability

1. Introduction and background

The business environment exposes top management and executives to so much data that data needs to be converted into useful information that is organised and summarised. Information definitely establishes a competitive advantage and enables business change by creating a strategic value through an Executive Information System (EIS). Businesses are using EISs as a business tool on a daily basis that enable top management and executives to extract useful information for decision-making and problem solving. In today's business environment, information is also required and utilised on all levels of the business. The driving force behind EISs is the strategic value, as information software technology improves in a digital environment, top management and executives must utilise the 'new' technology available for strategic decision making and managing daily business activities in order to remain competitive.

Sawy (1989:57) states that "…practitioners and academics spent the last ten years bringing out the characteristics that distinguish the varieties of information systems, which often resulted in a hair-splitting exercise." Therefore some references used in this exploratory study are older than ten years as these consulted references include all available references to investigate the study to its full extent to incorporate the history and literature of EISs and also to compare the thoughts of older studies to the digital era that are still valid and trustworthy.

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2. Research questions and research objectives

The research questions are to establish what EISs offer to fulfil the needs of users and to determine the impact on creating strategic value within the business in order to keep pace with on-going changes in technology. The objectives of this study are twofold. The first objective is to determine the use, purpose and strategic value of EISs in listed JSE companies to investigate the purpose and criteria for success of EIS and believing that investing in EISs will benefit the company. The second objective is to explore to what extent strategic value can be created through an EIS system to enhance sustainability and strategic competitiveness.

3. Literature study

A literature study investigates the definition, capabilities, problems, purpose of an EIS and discusses the strategic value as a driving force behind EISs. Furthermore the intention of the study is to unlock the strategic value in EISs in order to enhance business performance and decision-making. Derived from the literature study pertains as to whether top management and executives are prepared to be involved in information technology or whether they are unintentionally forced into the digital environment.

3.1 Defining EISs

Twenty different studies have been investigated regarding the definition of EISs. The definitions were documented and compared in the original research and for the purpose of this study the following definition of EIS is used:

An EIS is a computerised system that provides executives, top management and other senior managers access to internal and external information. Information that is relevant, accurate, timely and up-to-date in order to make decisions, solve problems, determine critical success factors and satisfy information needs. These interest groups are primarily interested in summarised data that has been transformed into meaningful information, using graphs, reports and on-line screens.

The definition of the EIS was stated in the cover letter of the questionnaire sent to listed JSE companies. In the questionnaire listed JSE companies indicated whether they have an EIS. Although an EIS is an extremely important information system within businesses, it is not the one and only formal framework that provides information within businesses. Eleven other information systems were identified and compared with EISs. The following were documented regarding the eleven information systems: several different information systems may exist in one business; information systems are completely independent; some information systems are interconnected; a collection of several information systems is referred to as an information system; and information systems are connected by means of electronic networks.

3.2 Capabilities of EISs

Twenty-three major capabilities of EISs of thirteen studies are tabled in Table 1. These capabilities were identified to determine the criteria for the success of EISs in listed JSE companies as per Table 6.

Table 1: Capabilities of an EIS

Capabilities of EIS	**Studies**													
	Sterenberg (1990)	Olson and Courtney (1992)	Chi and Turban (1995)	Nord and Nord (1995)	Rainer and Watson (1995)	Watson Watson Singh and Holmes (1995)	Young and Watson (1995)	Byrd and Marshall (1996)	Khan (1996)	Turban Mclean and Wetherbe (1996)	Walstrom and Wilson (1997)	Galliers and Leidner (2004)	Laudon and Laudon (2005)	**Total**
	(4)	(2)	(12)	(7)	(13)	(11)	(8)	(9)	(3)	(1)	(10)	(6)	(5)	
Drill down	x	x		x	x	x	x	x	x	x	x	x	x	12
Easy access	x	x		x			x	x	x				x	7
Status access mode	x				x			x	x	x		x		6
Exception reporting	x				x				x	x		x		5

External databases access					x	x	x	x				x		5
Capabilities of EIS	**Studies**													
	Sterrenberg (1990)	Olson and Courtney (1992)	Chi and Turban (1995)	Nord and Nord (1995)	Rainer and Watson (1995)	Watson Watson Singh and Holmes (1995)	Young and Watson (1995)	Byrd and Marshall (1996)	Khan (1996)	Turban Mclean and Wetherbe (1996)	Walstrom and Wilson (1997)	Galliers and Leidner (2004)	Lauddon and Lauddon (2005)	**Total**
	(4)	(2)	(12)	(7)	(13)	(11)	(8)	(9)	(3)	(1)	(10)	(6)	(5)	
Trend analysis	x								x	x		x		4
Ad hoc facilities	x								x	x	x			4
Text, graphs, tables on one screen	x						x	x	x					4
Internal database access						x	x	x						3
Extensive graphics				x			x					x		3
Electronic mail	x	x									x			3
Internal & external information on one screen	x								x				x	3
Security & control				x		x								2
Improve management's performance											x		x	2
Critical success factors			x							x				2
Multidimensional analysis									x					1
Quick & immediate access													x	1
Non-keyboard interface												x		1
Directly used by executives								x						1
Colour screens						x								1
Forecasting capabilities			x											1
Open-ended problems explanations			x											1
Standard definitions across businesses					x									1

3.3 Problems of EISs

The planning, developing, implementing and maintaining of EISs are not a trouble-free endeavour. The problems of EISs are investigated and discussed in twelve different studies, with regard to the limitations, shortcomings, obstacles, implications and disadvantages of EISs. The main problems are summarised as follows:

- defining EIS objectives;

- defining the information requirements for executives;
- time versus cost;
- an EIS is not timely;
- an EIS is a personalised system which is influenced by the characteristics of the CEO;
- executives and developers must work closely together in order to establish an effective EIS; and
- EISs are personalised systems and are customised for only executives.

Problems of EISs were identified to determine the reasons why listed JSE companies do not invest in EISs.

3.4 Purposes of EISs

The primary purpose of an EIS is to provide an essential link between management, which includes top management, executives, senior management, other managers, and the employees of the business (Khan, 1996:17). From readings the following purposes of an EIS are summarised:

- To reduce the amount of useless information: By using summarised reports of financial and non-financial information.
- To promote cost saving: A variety of businesses suggested cost savings through paper flows and reductions in staff and middle management (Khan, 1996:17).
- To encourage real-time and on-time reporting: Turban, Mclean and Wetherbe (1996:557) refer to it as status access mode; the latest and most recent data can be accessed at any time.
- To provide drill-down facilities: According to Bocij, Chaffey, Greasley and Hickie (2003:257) an EIS provides a drill-down feature which gives the executive the opportunity to access detailed information other than of the summarised information. Brody (1988:45) explains that by using drilling down facilities, executives can identify a problem area.
- To function as a management tool: An EIS can be used as a management tool in order to manage a business effectively.
- To plan and control information: Rockart and Treacy (1982:83) suggest a central purpose of EISs is to provide the Chief Executive Officer (CEO) with information that is planned and controlled.
- To provide a comparative evaluation: Over time, data has been captured in each business unit that enables the business to make use of comparative evaluation in order for executives to compare major competitors, key customers (Olson & Courtney, 1992:214), and financial reviews of past years with the current financial year.

A study by Volonino and Drinkard (1989:37) successfully integrates different management information systems into the strategic business plan. The objectives and purposes of an EIS by Volonini and Drinkard (1989:41) are summarised as follows:

- to provide all levels of management with current information, sophisticated and highly advanced control reporting on customers and accounting reports which reflect accurately summarised transactions;
- to reduce the dependence on customer service personnel;
- to provide the facility to all management to generate their own *ad hoc* reports; and
- to reduce the cost of paper, printing, mail and messengers.

From these studies the purposes for using EISs were identified and in the questionnaire, listed JSE companies identified the main purposes for using EISs as a business tool in order to determine the use and availability of EISs for executives to make strategic decisions.

3.5 Strategic value as the driving force behind EISs

In its original sense 'strategy' is referred to as the development plan for deceiving or outwitting an enemy (Bocij *et al.,* 2003:515). The term 'strategic management' covers the full range of activities in the strategy process, including data collection and interpretation (Manheim, 1989:16). The strategic plan of the business needs to be evaluated to ensure that objectives and strategies are clear and practical while the strategic success factors need to be reviewed and monitored (Kogan, 1986:10). Business management processes are outlined and discussed to compete and to contribute to add a

strategic value through EISs to accomplish how best to shape the business management processes of businesses. The main issues are:

- challenges to position and shape information technology within the business – the strategy, relationships and work methods are required to capture value (Marchand, Davenport & Dickson, 2000:283);
- effective management leads to the intensifying of competition and the emerging of new markets (Lohman, Sol & De Vreede, 2002: Introduction.par.1);
- adequate management planning ensures effective digital strategy (Hackbarth & Kettinger, 2000:78);
- creating an effective environment for users to enjoy competitive advantage over competitors (Chen & Nath, 2005:64);
- effective planning versus user perception of effective information technology activity (Cash, Mcfarlan & Mckenney, 1993:267);
- a information system allows users to examine the strategic relationship between businesses that share data electronically (Young, Carr & Rainer, 1999:32);
- a new and fresh information technology indentifies new opportunities, and capabilities(Typanski, 1999:32);
- CEOs need to participate in strategic information system planning (Kearns & Lederer, 1999:59); and
- management to provide an environment that is robust, extensible and strategy implementable (Rabin, 2003:62).

Lohman *et al.* (2002: Abstract, para.1) suggest that the availability of effective management information is essential when dealing and coping with the complexity and dynamism, both internal and external in businesses. Yoon (1999:64) examines the steps to discover knowledge when users extract information that is useful for decision support and how management can apply these steps more effectively for meeting the overall corporate strategies of the business. Yoon (1999:70) concludes that there is a "growing gap between powerful massive storage retrieval systems and the ability to analyse the collected data effectively to extract useful knowledge for decision-making processes." Stokes (2004:86) discusses the competencies needed by top management, executives and senior managers that contribute to the sustainable effectiveness of information technologies. Clarke and Cameron (1992:105) further argue that with the introduction of new information technologies are often associated with significant changes to the business. Kearns and Lederer (1999:59) suggest that CEOs need to participate in strategic IS planning that may be important under conditions of increased environmental uncertainty and/or information intensity, especially for businesses highly dependent upon information technology.

From these different studies the strategic value of EISs were identified and in the questionnaire, listed JSE companies indicated if investing in EISs will benefit their company and reasons why companies invested in EISs.

4. The link between EISs and strategies

Executives are familiar with information systems, some have used them, extract information, maintain and develop them, but what executives want are to manage better as a team that lead their business to execute business strategy better and faster in the face of a changing business environment (Gunner, 1986:55). According to Kogan (1986:12) every business has "…some form of executive reporting system. Yet often these systems do not focus adequately on the most important task of senior management – the implementation of strategy." Bocij *et al.* (2003:563) state that if a business does not have "…a clear picture of what its strategy is, it is difficult to see how the right information systems can be put in place." Also if the information needs are unclear it is difficult to determine what the right information technology must be to satisfy those needs.

A list of main limitations to overcome in providing an EIS:

- Accessing accurate data
- Executives ever-changing information requirements

- Defining objective of EIS
- Sufficient staff and computer resources
- Variety, complexity and defining information requirements
- Timely data
- Information not in a standard format
- Development of EISs according to the executives individual needs
- Distribution of information management responsibility
- New developments require frequently information technology changes to survive in an extremely competitive and global environment
- Decisions regarding buy or build
- Personalised systems are customised for executives only
- Focus on technical support rather than information support
- Executives and developers must work closely together in order to establish an effective EIS

5. Research design, research methodology and data collection

A literature review was conducted with the specific aims of identifying, firstly, EISs and, secondly, the strategic value of the business. Observations were made and specific areas were identified from the review. A questionnaire (See Appendix A) was designed to identify if companies are using EISs to create strategic value. This study is an exploratory and discovery-orientated study and the research methodology is quantitative in nature.

A questionnaire with a cover letter was e-mailed to 334 listed JSE companies on the 19th of October 2007. Most of the questions were only a "click" of the mouse that required a response and other questions were open-ended questions. Some questions were compulsory and respondents could not proceed if required fields were not completed. Each e-mail sent was numbered and linked to a listed JSE company in order to facilitate the follow-up process for non-responses. A spreadsheet to monitor the results was developed.

6. Findings

The link to the survey was deactivated on the 23rd of November 2007. Of the 334 listed JSE companies, eighty seven CEOs, Financial Directors (FDs), Managing Directors (MDs), directors, executives and senior managers responded, a response rate of 26%. The percentage reported is based on the number of responses received from each completed questionnaire. However, in some cases more than one person per company responded to the questionnaire and since the unit of analysis is a listed JSE company, sixty five listed JSE companies responded to the questionnaire, a response rate of 19.5%. Twenty five of the respondents indicated that they had an EIS and the remainder of forty respondents indicated that they did not have an EIS at that time. Thirteen of the forty respondents that did not have an EIS were planning to implement an EIS in the near future. The support of EISs will therefore increase from 19.5% to 59% after future planned EISs were implemented. Some of the addressees responded to the sender's e-mail via e-mail that they were unable to respond to the survey due to various reasons.

The sixty five companies that responded to the questionnaire represents 16% (R0.995-trillion of the total market capitalisation (R6.219-trillion as October 2007) of the all the JSE listed companies. The findings of the questionnaire are discussed in the following seven tables.

Number of employees: This question was asked to determine the number of employees in the company to compare the association between the size of the company and the existence of an EIS.

The JSE listed companies in the survey represent a variety of companies, very small, small, medium, large and extra large as per the number of employees. The extra large companies represent 40.0% of the 65 respondents. In the cross tabulation between associations Table 3 number of employees were associated with the number of companies that have an EIS.

Table 2: Number of employees

Number of Employees	Frequency	Valid Percent
Less than 50	10	15.4
50-100	5	7.7
100-1000	19	29.2
1000-2500	5	7.7
More than 2500	26	40.0
Total	65	100.0

In Table 3, forty of the sixty five companies responded that they do not have an EIS. The size of the company and the existence of an EIS were compared to determine if an association exist. A Pearson Chi-square test for independence was conducted to determine whether the size of a company is related to having an EIS. The proportion of large companies that have implemented an EIS (65.4%) is significantly different from the proportion of both; small (less than 100; 6.7%) companies and medium (100 to 2500; 29.2%) companies ($\chi^2(2) = 15.245$, $\rho < 001$). The magnitude of the association was moderate (Cramer's V: 0.484). The practical value of the test determines that larger companies have the tendency to have an EIS in relation to smaller companies.

Table 3: Association between the size of the company in three categories and the existence of an EIS

Number of Employees/ Size of the Company	Have EIS				Total	
	Yes		No			
	Count	% within Number of Employees	Count	% within Number of Employees	Count	% within Number of Employees
Less than 100	1	6.7%	14	93.3%	15	100.0%
100-2500	7	29.2%	17	70.8%	24	100.0%
More than 2500	17	65.4%	9	34.6%	26	100.0%
Total	25	38.5%	40	61.5%	65	100.0%

Respondents by position in the company: This question indicates if the person forms part of the executive team of the company because an EIS is aimed at the executives of the company. The executive(s) of a business can be one or more persons in the business whose job position(s) and/or title(s) varies from director, chairman, president, chairperson, chairwoman, chief executive officer, managing director, financial director, senior manager, manager, controller to name a few (Collins, 2002:163). There is a very fine line between 'executives' and 'non-executives', because executives are treated differently in relation to non-executives in respect of staff benefits and other special privileges. Table 4 shows the rank order of the person's position in the company. Clearly from all the respondents the majority of the respondents which have completed the questionnaire were: CEOs (29.3%), followed by the FDs (24.7%). Although questionnaires were addressed to top management it is interesting to note that other levels participated substantially, surprisingly the response rate of managers was 17.0%. Nine respondents (13.5%) indicated other positions that were not listed in the questionnaire.

Table 4: Respondents by position in the company

Respondents by position in the company	Frequency	Valid Percent
CEO	19	29.3
FD	16	24.7
Manager	11	17.0
Director	8	12.4
MD	2	3.1
OTHER	9	13.5
Total	65	100.0

Purpose/s of using EISs: Potentially an EIS provides a wide range of purposes and capabilities but only the main purposes were listed as per Table 5. This question explains the main reasons why EISs are beneficial to companies.

This question was not compulsory and respondents could select more than one purpose for using EISs. Nearly thirty seven percent (36.9%) use EIS as a decision-making tool and twenty three (23.1%) use EIS as a problem solving tool.

Table 5: Purpose/s for using EISs

Purpose/s for using EISs	Marked	
	Count	Percentage
Decision-making	24	36.9%
Problem solving	15	23.1%
Quick reference	8	12.3%
Scheduling	6	9.2%
Electronic mail	6	9.2%
Other	3	4.6%

Criteria for the success of EISs: This question explains if EISs are successful in listed JSE companies. This question was not compulsory and the respondents could select more than one criterion for the success of EISs. Decision-making and problem solving scored the highest as the most important purposes of EISs and therefore executives rated the quality (35.4%) and integrity (32.3%) of information as the most important criteria for the success of EISs. The criterion 'cost' was not a major factor for the success of EISs and the criterion 'interest of staff' was not even considered important by respondents. Surprisingly the criterion 'better communication among management' (15.4%) was added as a last criterion to test the diversity of staff in current South African companies as well as the relationship of information technology professional staff versus professional financial staff. The latter is an on-going debate in companies as to who is responsible for what as there are definite 'grey areas' where both parties are responsible for certain managerial duties.

Table 6: Criteria for the success of EISs

Criteria for the success of EISs	Marked	
	Count	Percentage
Quality of information	23	35.4%
Integrity of information	21	32.3%
User-friendly	16	24.6%
Quick response time	15	23.1%
Decision-making	13	20.0%
Regularly updated	13	20.0%
Management involvement	12	18.5%
Better communication among management	10	15.4%
Cost	9	13.8%
Interest of staff	0	0.0%
Other: Integration - visibility across the value chain	1	1.5%

Believing that investing in EISs will benefit your company: This question was a Yes/No question to determine if investing in EISs will benefit the company. In Table 7, 96% of the companies that have an EIS agreed that investing in EISs will benefit their companies and the reasons why are listed as per Table 8.

This question was compulsory. An overwhelming response were received that companies believe in EISs that guarantee the continuous use of EISs in listed JSE companies. Only one company of the Information Technology industry did not believe that investing in EISs will benefit the company.

Table 7: Believing that investing in EISs will benefit your company

Believing that investing in EISs will benefit your company	Frequency	Valid Percent
Yes	24	96.1%
No	1	4.9%
Sub Total	25	100.0
No EIS	40	
Total	65	

This question was not compulsory and seventeen addressees responded to the question as per Table 8.

Table 8: Why investing in EISs will benefit your company

Why investing in EISs will benefit your company
All executive easily able to compare and access across the group.
Availability of critical data.
Consolidate and make available to key decision makers group information which was not available before due to our decentralised management philosophy.
EIS allows for control; Quick decision making; Poor performance detection and quick action; and Good communication.
Fast, efficient and cost effective way of implementation.
For increasing productivity and using people to full potential; Managing the business instead of spending time number crunching; As a competitive advantage; To stay on the leading edge; and To have visibility across the value chain - to create synergy.
Group wide information capturing and sharing were required.
The manipulation of management information is the essential key to success in business.
It's not the technology that matters, but how the information is used.
It has enhanced the quality of decision-making in the organisation.
Management of data and information flow.
Mechanism to deliver reporting.
Our company operates in a very competitive environment and decision-makers are highly dependant on accurate, near-real-time information.
On the spot decisions can be made with the availability of information.
Quick decision making.
Sometimes difficult to explain to non financial and non technical people that information systems have a place in an organisation.
To realise the benefit

7. Conclusion

Today there is an urgent need for businesses to adapt or to adjust constantly to changing business conditions in an ever-changing dynamic environment. Executives and top management need to empower and encourage lower level members to use information systems that enable them to work more efficiently. In the last decade a major shift has been experienced into a new era leading to a new digital era and digital environment. The driving force is new technology, notably information

technology, and it is emphasized as follows: when the landscape changes the map changes. Information systems are designed and implemented every day in a variety of different ways to support the business functions and processes. Management needs to decide and choose how the business needs to be structured to best fit the information system, as each business is different. By introducing an EIS, all users of businesses will have a competitive advantage over their competitors and are positioned strategically in an ever-changing business environment.

The results of the questionnaire indicated that thirty eight companies (nearly 60%) of the sixty five listed JSE companies have an EIS or are planning to implement an EIS. As this study was an exploratory study there was no other evidence and formal measures of previous EISs studies to compare the results to, within a South African context. Reasons for implementing an EIS varied as an EIS is: an excellent management tool which makes use of standard tools and built-in features, critical for real-time decision-making, familiar to users in all companies, a competitive edge for competitors and it is not the technology that matters but how the information is used. However it is clear from the results of the questionnaire that an EIS creates and adds strategic value in companies. In conclusion it can be stated that the main objective of the study was met and was supported by the evidence gathered. The respondents to the questionnaire indicated that they understand and show an interest in EISs as a useful part of their company, irrespective whether the company has an EIS or not.

8. Appendix A

Questionnaire

1.	Name of Listed Company:			
2.	Number of employees:	Choose one		
3.	Name of person completing this questionnaire:			
4.	Highest level of Education	Choose one		
5.	If other, please specify:			
6.	Position of person completing this questionnaire:	Choose one	:	
	If other, please specify:			
7.	E-mail Address:			
8.	Web Address:			
9.	Type of Industry: If other, please specify:	Choose one		
10.	Which Annual Financial Elements do you download on your Web Site?			
		Yes	No	
	Full Annual Report	○	○	
	Chairman's Report	○	○	
	Corporate Information	○	○	

	Year-in-Review	○	○	
	Management Report	○	○	
	Financial Summary	○	○	
	Balance Sheet	○	○	
	Income Statement	○	○	
	Cash Flow Statement	○	○	
	Notes to the accounts	○	○	
	Changes in Equity Statement	○	○	
	Audit Report	○	○	
	Links to non-financial information	○	○	
	If any other, please specify:			
11.	Does your business have an EIS (Executive Information System)?			
	○ Yes			
	○ No			
12.	Did your business have an EIS previously?			
	○ Yes			
	○ No			
13.	If Yes, Why did you stop using the EIS			
	Cost	☐		
	Not User-friendly	☐		
	Invasiveness	☐		
	No involvement from management	☐		
	Not regularly updated	☐		
	If other, please specify:			
14.				

	Is your business planning to implement an EIS?			
	○ Yes ○ No			
	If Yes, when do you foresee implementing an EIS?	Choose one		
15.	Will you accept another EIS, like a standard EIS for all businesses in a standard format?			
	○ Yes ○ No			
16.	If Yes, under which conditions?	(Tick all that apply)		
	Cost	☐		
	User-friendly	☐		
	Non-invasiveness	☐		
	Management Involvement	☐		
	Regularly updated	☐		
	If other, please specify:			
17.	Who will be your main decision-maker concerning the implementing of an EIS if required in the future?	(Tick all that apply)		
	CEO	☐		
	Executive	☐		
	Accountant	☐		
	MIS (Management information system)	☐		
	Manager	☐		
	If other, please specify:			

If Question 11 was answered "No", please ignore the rest of the questionnaire and click on submit now

Submit Reset

18.	Who was responsible to implement the original EIS in your company?	(Tick all that apply)	
	CEO	☐	
	Executive	☐	
	Accountant	☐	
	MIS (Management information system)	☐	

	Manager	☐	
	If other, please specify:		
19.	For what purpose does your company use an EIS?	(Tick all that apply)	
	Decsion-making	☐	
	Problem solving	☐	
	Scheduling	☐	
	Quick reference	☐	
	Electronic mail	☐	
.	If other, please specify:		
20.	Who is defining the requirements of the EIS for executives?	(Tick all that apply)	
	CEO	☐	
	Executive	☐	
	Accountant	☐	
	MIS (Management information system)	☐	
	Manager	☐	
	If other, please specify:		
21.	What software is used for your existing EIS? If other, please specify:	Choose one 	
22.	How many people in your business can access the complete EIS?	Choose one	
23.	Who are the main users of EIS?	(Tick all that apply)	
	CEO	☐	
	Executive	☐	
	Accountant	☐	
	MIS (Management information system)	☐	
	Manager	☐	
	Other users outside the company	☐	
	If other, please specify:		

24.	What are the criteria for the success of an Executive Information System in your company?	(Tick all that apply)	
	Cost	☐	
	User-friendly	☐	
	Quality of information	☐	
	Integrity of information	☐	
	Quick response time	☐	
	Management involvement	☐	
	Regularly updated	☐	
	Interest of staff	☐	
	Decision-making	☐	
	If other, please specify:		

			Involvement			
25.	Who decides what content must be included in the EIS?		Main	Some	Minor	None
	CEO		○	○	○	○
	Management Committee		○	○	○	○
	Executive		○	○	○	○
	Accountant		○	○	○	○
	MIS		○	○	○	○
	Manager		○	○	○	○
	Other (please specify)		○	○	○	○
			○	○	○	○

26.	Who adds new features to the EIS?	(Tick all that apply)	
	CEO	☐	
	Executive	☐	
	Middle Management	☐	
	Auditors	☐	
	Investors	☐	
	Accountants	☐	
	Other users outside the company	☐	
	If other, please specify:		
27.	Who ensures the integrity of the data in the EIS?	(Tick all that apply)	

	CEO	☐	
	Executives	☐	
	Middle Management	☐	
	Auditors	☐	
	Investors	☐	
	Accountants	☐	
	Other users outside the company	☐	
	If other, please specify:		

28.	Who assures ownership of the EIS?	(Tick all that apply)	Yes	No
	CEO	○		
	Executives	○		
	Middle Management	○		
	Auditors	○		
	Investors	○		
	Accountants	○		
	IT Person	○		
	Non-Management Staff	○		
	Other users outside the company	○		
	If other, please specify:			

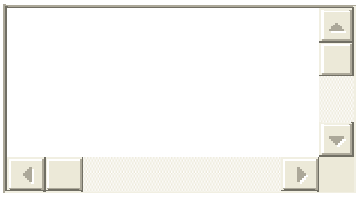
29.	What Financial information is available on EIS for Executives?	(Select all that apply)	Yes, Regularly Upgraded	Yes, but not always Upgraded	No
	Balance Sheet		○	○	○
	Income Statement		○	○	○
	Cash flow Statement		○	○	○
	5-Year Review		○	○	○
	Comparative Figures		○	○	○
	Actual versus Budgets figures for the company		○	○	○
	Taxation Enquiries		○	○	○
	VAT Reports		○	○	○
	Graphs on Ratios/Budgets vs. actual of the company		○	○	○
	Drill down to Chart of Account level		○	○	○
	On-time, real-time		○	○	○

	Exchange Rates				
	Interest Rates				
	Links to the JSE				
	Trend Analysis				
	Capability to do what-if-analysis				
	Audit Report				
	Exception Reports				
	Investors Guide				
	Ratios				
	Fixed Asset Register				
	Database Access				
	Report Writer for Formal Reports				
	Management Report				
	Financial Summary				
	If other, please specify:				
30.	What type of Non-Financial information is available on EIS?	(Select all that apply)	Yes, Regularly Upgraded	Yes, but not always Upgraded	No
	Links to News Agencies				
	Mission Statement				
	Logo of Firm				
	Contact details of Firm				
	Directors of the Firm				
	Shareholders of the Firm				
	Unions				
	Complement of Staff (Headcount)				
	Internal Telephone list/E-mail of staff				
	Other Important Contacts, like Auditors, Consultants, Investors, Contractors, Other etc				
	Order form for Stationery and Printing				
	Scheduling Meetings				

	Leave Forms/Leave Available				
	Salary and Wage Negotiations/Agreements				
	Canteen facility				
	Parking bay allocation				
	Application form for personal loans				
	Medical Aid for Staff (Claims, Policies etc)				
	Pension Fund for Staff (Retirement, Contributions etc)				
	IRP5				
	Street Map for local deliveries				
	Fixed Assets per office, room, section etc				
	Booking of Internal Venues				
	Travel Agencies/Accommodation				
	Wine and Dine				
	Car Hiring				
	Computer and workstation assistant				
	First Aid				
	Fire Drill				
	Multimedia and Hypermedia				
	Products/Services				
	Organisational Structure of Firm				
	UIF				
	Internet Banking				
	Calendar of events/meetings				
	Labour Laws				
	If other, please specify:				

31.	Which of the following factors affect the efficiency of your EIS?	(Select all that apply)	Crucial	Important	Minor	None
	Response Time					
	Involvement of Executives					

	Lack of resources		○	○	○	○
	Lack of interest		○	○	○	○
	Saving Cost		○	○	○	○
	Quality of Information		○	○	○	○
	Identify New Opportunities		○	○	○	○
	Increase Productivity		○	○	○	○
	Improves control and communication		○	○	○	○
	On-time, real-time		○	○	○	○
	Respond time to competitors must quicker		○	○	○	○
	Availability of Market Indicators		○	○	○	○
	Knowledge of new technology		○	○	○	○
	User-friendliness		○	○	○	○
	Software upgrades		○	○	○	○
	Security		○	○	○	○
	Viruses		○	○	○	○
	Availability of information regularly required		○	○	○	○
	Links to JSE, Databases etc		○	○	○	○
	If other, please specify:		○	○	○	○
			○	○	○	○
			○	○	○	○
			○	○	○	○
32.	Will you believe that investing in EISs will benefit your company					
	○ Yes					
	○ No					
	If Yes, Why?					
33.	Will you propose a standard EIS for all companies?					
	○ Yes					
	○ No					
	If Yes, Why?					

34.	What other valuable experiences of EIS would you like to share?	

End. Thank You for your Participation

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