

INFORMATION MANAGEMENT IN FINANCIAL
INSTITUTIONS IN BOTSWANA

by

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SUMMARY

THE STATUS OF INFORMATION MANAGEMENT IN FINANCIAL INSTITUTIONS IN BOTSWANA

Enterprises are becoming more dependent on information than ever before and, in this new millennium, the survival and success of these enterprises will highly depend on the ability to manage information as a resource for competitive advantage. This study is concerned with establishing the extent to which information management is practiced in financial institutions in Botswana.

The main problem under investigation is the importance of information management within an enterprise and to ascertain how information can ensure competitive advantage in an enterprise. In the first four chapters, a literature survey is done to get a better understanding of what information management is and how information management can transform business and how information management can be used as a source of sustainable competitive advantage.

The second part of the study is the empirical survey where qualitative research was conducted on financial institutions in Botswana, including commercial banks and insurance companies. The aim of the research was to determine the status of information management in these institutions as well as to investigate what people generally understand the concept information management- to mean.

It was further investigated if at all information management was an issue in the enterprise culture of Botswana and if the concerned institutions regard information management as a source for competitive advantage. Structured interviews were conducted with top management in ten business institutions. The data obtained from the interviews was analysed and interpreted according to the grounded theory.

The findings of the research revealed that information management, as a formalised concept, is fairly new to most business enterprise managers, and that there is no common understanding of the concept. It is however evident that most business managers accept the fact that information management is a necessary condition for ensuring the sustainability of their business enterprises. Most of them acknowledged that information is very critical for the survival of the business and for staying ahead of others.

It is recommended that enterprises should adopt a holistic approach towards information management. Business enterprises should employ people with proper information management skills and trained personnel in this area.



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CHAPTER 1.

THE PROBLEM AND ITS CONTEXT

1.1 BACKGROUND TO THE PROBLEM

The value of the concept and application of information management systems is becoming more acceptable in developing countries. These countries have just woken up to the reality that they are crawling behind and are left with very little choice but to catch up with developed countries. Economic development is dependent on the way a country handles and uses information.

According to Winkel and Pejova (1990:230) developing countries are faced with the challenge of catching up with modern societies. The big question is whether they should follow the development pattern of the developed countries or not. There is the observation that in most developing countries, the possibility of catching up with developed countries is limited because business enterprises are neither interested in acquiring information systematically nor to manage it properly because they are not yet convinced that it is useful to do so. It is also observed that those who accept the value of information in business lack the skills to implement information management system. Developing countries are disadvantaged by lack of infrastructure, low levels of education, weak economies and lack of clearly defined policies at the macro level. However, there is hope that with the anticipated drop in the costs of telecommunications technologies and infrastructure, the electronic resources for information dissemination will be taken advantage of.

The information infrastructures of most developing countries have been set up and developed along the patterns and experiences of their counterparts in developed countries. They are primarily designed to serve the scientific and technological information needs of academic and research communities. Their application to business enterprises leaves a lot to be desired. As mentioned above, the economies of developing countries are relatively weak and unstable. These countries have been going through the process of economic reform and structural adjustment for the last couple of decades. These processes were introduced as a possible remedy for the acute economic problems created by years of poor macro/micro economic policies; and were also a response to the powerful force of globalisation of the world economy and international competition.

The emergence of changes in information management systems has globalised trade and investment. These changes compel all countries, developed as well as developing, to adjust their utilisation of information for economic development. Developing countries should not be left behind as these changes occur but should rather make an effort to take advantage of the benefits of these advances. Broadbent (1991:1) asserts that every country now operates in global markets, in an increasingly turbulent and volatile environment. In this case, she maintains, it is very necessary for business and government to integrate information into key decision-making processes. Responding to this changing and very dynamic environment requires new organisational and managerial approaches from business enterprises. One of the basic tools necessary to adapt to the changes in the business environment and those which will allow for performing successfully under conditions of fierce competition is proper management of information and information resources.

According to Kargbo (1997) the magnitude and complexity of the business market in developing countries is largely unknown to the average consumer. Very few businesses have effective machinery to collect and coordinate information from a variety of sources and to apply it towards improving organisational decision-making. Whatever handicaps might be encountered in this process could be overcome if developed countries facilitated the flow of knowledge to developing countries.

Several studies have shown that in most business enterprises in developing countries information is acquired by informal means through the radio, television, newspapers and conversation. Key factors relevant to any information requirements such as the activities of an enterprise and its capacity to use information and the economic and industrial development policy are valid for survival of enterprises in developing countries. These factors should be analysed in order to arrive at an understanding of the conditions which should be met in developing countries for enterprises to acquire and use the necessary information.

Darch (1995:5) believes that developing countries are aware of the economic role played by information. He however maintains that although there is a realization in developing countries that information is economically significant, there is little evidence that the kind of fundamental re-thinking about the economic role of information managers is actually taking place.

1.2 PROBLEMS STATEMENT

According to Hayward and Broady (1995:258) it can be argued that information and knowledge play an important role in the political and economic landscape. Over the last few decades, it has been shown that the information revolution has begun to change the very source of wealth for given countries, (Bowes, 1995:120). Wealth is no longer material based. It is now perceived as knowledge to create value. The pursuit for wealth is now the pursuit for information and its application in business.

The new information economy changes the definition of an asset and the nature of wealth. Competition is no longer for the best piece of land but for the best information. The nations and enterprises that possess the best information are the ones that lead in the global economies. Business and institutions that capitalise on information will be vastly different from those ones that competed mainly for material resources.

Information is essential for the continued existence and prosperity of enterprises as well as any country's economic wealth, Terblanche and Du Toit (1996:106). Hayward and Broady (1995:256) perceive many of the difficulties associated with basic economic activity such as production and consumption to be concerned with acquiring and assessing information. They further note that economic models are often based upon a world where information is ready and easily available. It has been recognised that information is an important resource for business and public enterprises as well as being important for decision-making, marketing and production. Information as a resource contributes a lot to development in the sense that it increases the worker's efficiency which in turn influences and even determines the performance of the enterprise as a whole.

Business information is important in enabling all companies to reach their full potential. It facilitates growth and development in new enterprises and helps the older ones to grow and, as such, contribute towards achieving a degree of economic stability.

In enterprises, sophisticated managerial decisions are made daily, planning and projections for the future are undertaken, research is done and marketing decisions and strategies are applied. It is interesting to note that these and other related activities can only be performed successfully if relevant and accurate information is available. Relevant information seems to be an indispensable component of the enterprise if managers wish to stay abreast of the latest developments. Keary (1996:35) maintains that understanding the value of information is a critical element in the overall process of managing

information. He further alleges that it is obvious but not always evident that information must be managed to give advantage to the enterprise. In the past, data was collected for the production of inventory and logistic purposes and was used to monitor and control these processes. In this case, information was not considered a source of value as such but as supporting element of the value adding process, Keary (1996:35).

Information is increasingly recognised as a powerful resource and enterprises that are already collecting meaningful data consider it to be a business asset but until they are able to coordinate that information to improve services and products for customers, its real value is not realised. Unless enterprises have some personnel who are skilled in selecting, analysing and synthesizing data, the value that can be created from data collected on a daily basis in the office may not be realised. Information management enables enterprises to identify their own core activities. It is only through information management that managers can become aware of the amount of self-generated information that exists in the enterprise and its potential for further use.

With increasing instability in many markets and the need for enterprises to adapt to the environmental changes faster, the reliance on internally created information becomes inevitable. Enterprises are faced with the need to manage their information more proactively and to seek to create value from the information gathered rather than just collecting it for its own sake.

The need, therefore, for enterprises to employ people with skills for managing information has become a basic requirement for survival. Technologies for facilitating information management should in this case be duly acquired.

Against the given background, the following problem will be addressed in the research:-

- What is the status of information management in Botswana ?

The following sub problems will be addressed:-

- What is the status of information infrastructures in developing countries?
- What does the concept “information management” entail?

- What are the benefits of information management to business enterprises?
- Do financial institutions in Botswana value and apply principles of information management?

1.3 DEFINITION OF TERMS

1.3.1 Information Management

Boon (1990:320) defines information management as management of information as a resource, such that information functions as well as the information cycle are able to function optimally. He goes on to say that information management deals with the management of resources such as information media, people, information systems and physical facilities that are required if information is to play a role in the corporate, strategic, operational and personal level..

Mason, in Roets and Boon (1992:138), perceives information management as a process of planning, organizing, staffing, directing, coordinating and controlling diverse information activities including the formulation of information services, systems and formats for the purpose of achieving organizational objectives.

Best, in Fairer-Wessels (1997:95) believes that information management should be seen as the economic, efficient and effective coordination of the production, control, storage, retrieval and dissemination of information from external and internal sources in order to improve the performance of the enterprise.

From the literature dealing with the concept of information management, one deduces that this concept is not easy to define. All the definitions given above are appropriate depending on the perspective one adopts.

For the purpose of this research, the author would like to consider all the definitions (put together with emphasis on managing information in totality), as a strategic resource in an attempt to attain the objectives of the enterprise. That is, creating strategies that will maximize intelligent use of information to achieve corporate objectives such as cost minimization, quality improvement and customer responsiveness.

1.4 RESEARCH METHODOLOGY

The study will be based on a comprehensive literature survey. The literature is studied to provide a basis for the empirical study which aims to answer the question whether financial institutions in Botswana strategically manage their information resources. Structured interviews will be conducted with senior managers in these institutions.

1.5 CHAPTER OUTLINE

Chapter two will discuss the information situation in developing countries and how it differs from that in developed countries. It will also briefly look at what the situation is like in Botswana.

Chapter three will discuss the concept of information management. It will focus on the tasks and responsibilities of an information manager will also be discussed.

Chapter four will look at the impact of information management in a business enterprise and how the transformation of business enterprises relates to information management. The strategic value of information and how information technology facilitates information management will also be discussed.

Chapter five provides the empirical survey of the study. It discusses the situation of financial institutions in Botswana. Chapter six will deal with the analysis, conclusions and recommendations of the study.

CHAPTER 2.

INFORMATION INFRASTRUCTURES IN DEVELOPING COUNTRIES

2.1 INTRODUCTION

This chapter discusses the status of information infrastructures in developing countries. The obstacles to information flow in developing countries and suggestions towards overcoming these obstacles will also be discussed. The discussion is based on the general premise that information will only be managed efficiently and effectively when the necessary infrastructure is in place.

2.2 INFORMATION AND ECONOMIC DEVELOPMENT

The global economy is currently undergoing an information revolution which will have the same effect as did the industrial revolution. The goods producing sector of the economy is getting less and less important and is producing a smaller share of the anticipated economic output. It is now the service sector that is contributing more to economic development. The service sector based firms are involved in activities that involve distribution of goods, and more important, the exchange of information.

Information is not a tangible commodity but it adds value to enterprising and indirectly contributes to economic development. Information is increasingly becoming important for economic growth.

The world is transforming into an information society. The 21st century has seen the dawn of the information age. It is no longer a dream of the future. Though information cannot feed, clothe or provide houses to the world, it has the capacity to create wealth that can be converted into food, clothing and shelter. Alemie (1998:184) alleges that advances in technology reinforce the economic and social changes that are transforming business and society. He maintains that a new type of economy - the information economy - is emerging where trade and investment are global and enterprises compete with knowledge and agility on a global basis.

The information revolution brings with it hope to alleviate poverty and inequality in development. With the advent of the information economy, old ways of doing business will be challenged. Information technology in developing countries can transform old challenges and create unprecedented possibilities

for sustainable economic development just as it has for business in industrial countries (Alemie,1998:181).

The information revolution has compelled all countries to regard information technology as an important factor in economic growth. Those countries without access to information services might face a double blow, lacking both information and opportunities for economic growth. Developing countries will pay a heavy price if they lag behind. If these countries do not have the ability to utilise information for successful adjustment, their economies might be less competitive in international markets.

Adam and Wood (1999:308), suggest that developing countries should either adapt and use knowledge to enhance their drive for socio-economic development or they fall back even further. That developing nations should take it upon themselves to become full actors in the global information revolution or else the gap between the haves and the have nots will widen and they will be marginalized further.

According to Alemna (1999:167), on a wider scale, the emerging information highways constitute an important factor in major social transformation such as the internationalisation of trade and the development of a world economic market. If economic institutions in developing countries do not operate in an information rich environment when entering bilateral and multilateral bargaining they will find it difficult to get alternative markets and sources of supply.

2.3 DEVELOPMENT OF INFORMATION INFRASTRUCTURES

Information infrastructures are high capacity communication facilities which are being built to handle the ever-increasing tide of voice, data, image, text and traffic (Alemie 1998:181). They are being built with the hope and expectation that a huge market will develop for tradable electronic information.

As we enter the 21st century, information transferring and transforming technologies will be powerhouses of the emerging post-industrial information age. Arunachalam (1999:466) describes these as a convergence of information and communication technologies, such as computers, digital networks, telecommunication, television,etc. that make rapid and widespread dissemination of information and knowledge possible.

The personal computer has now joined the television and telephone to create a vast and growing global network that people can use to converse, hold meetings, run virtual universities, conduct business etc. The fastest growing information infrastructure, the Internet, is highly dependent or linked to telecommunication networks and as such telephone companies are in a strong position to shape the evolution of tomorrow's global infrastructure. Some of the main routes available in the modern information infrastructure are cellular and other mobile communication networks, broadcast television, (direct to the home satellites services) and the Internet. There are also non-networked forms of electronic information such as CD-ROM readers and videocassette recorders. The non-electronic ones include postal services, newspapers and books. As already mentioned, it is the Internet that has proved to be the growth industry of the 1990s and the new millennium. The adoption and utilisation of information and communication technologies is not widespread in developing countries. Most of such countries have lack of infrastructures to support these technologies.

According to Arunachalam (1999:471) the information revolution is still very much in its beginning stages and is limited primarily to the developed world. While the governments of developed nations are fast adapting to the new information environment the majority of the developing countries are still struggling with development issues.

2.3.1 Role of government in developing information infrastructures

Government, the private sector, local communities, non-governmental organisations and international organisations, all have a role to play in creating information economies in developing countries.

The role of government includes creating the policies, laws, regulations and institutions needed for the information economy. Alemie (1998:183) observes that as users of information products, governments can capture large benefits from information technology and can influence the supply of information as a major consumer. Information infrastructure projects of great potential benefit may not get started on their own and governments must often play a critical role.

Competition in the private sector which influences the growth of telecommunications and information industries could not have taken place in advanced countries without government intervention. Governments around the world have come to recognize that telecommunications, information services

and information technology sectors are not only dynamic sectors themselves, but are also engines of development and economic growth throughout the economy. With this realization, countries have focussed their initiatives on the capabilities of their underlying information infrastructures. It is the role of government to ensure that the full potential benefit of advances in information and telecommunications technologies are realized for all citizens.

2.4 TYPES OF INFORMATION INFRASTRUCTURES

2.4.1 National information infrastructures (NII)

Alemie (1998:182) envisages national information infrastructures as consisting of telecommunications networks, the strategic information systems networks and widespread access to communications and information services. The national information infrastructures are not a new thing; they have been in existence for a long time and have been continuously evolving with each new advance in information communication technology. National information infrastructures have been there since the establishment of postal services.

There is now calling for the building of foundations for living in the information age and for making these technology advances useful to the people/public, business and other non-governmental entities. The value of the national information infrastructures to users and the nation, will depend on a few elements such as software, the network standards and the people who create the information. Most of these people will be vendors, operators and service providers.

The development of national information infrastructures in developing countries is moving slowly compared to what is happening in the developed countries. Developed countries have realized that a country's information infrastructure is an essential element of political, economic, social and cultural development. It actually facilitates advancement in these areas by facilitating dissemination of information on which development depends. They have even made efforts to draw plans for developing and deploying national information infrastructures. On the other hand, very few developing countries have elaborate national information infrastructure policies. Examples of these are Latin American countries such as Chile, Argentina and Mexico. In most African countries, the case is such that there is no proper coordination of issues concerning development and maintenance of information infrastructures. These

countries do not have institutions that are specifically responsible for designing and implementing information technology infrastructures. According to Alemie (1998:182) the development of information infrastructure policies in Arabic and African states is proceeding in a fragmented manner.

2.5 BARRIERS TO INFORMATION FLOW

2.5.1 Costs

Most developing countries have not been able to benefit from the opportunities of information flow because of various barriers they are confronted with. One of these involves the costs arising from the acquisition and maintenance of new information technologies. Africa is still far behind in the area of telecommunications on which the most recent information infrastructures depend. Alemie (1998:183) observes that Africa is the only continent in the world where no telecommunications equipment is manufactured and almost all the materials used are manufactured without local input. With the weak economies that characterise most of these countries, the cost of establishing networks and consequently, the tariffs charged are out of reach for most people. Reflecting the telecommunication costs and the small markets, charges for dial up access are higher in Africa than anywhere else. In some countries the charges are so high that even if computers, are available it is only the privileged few who can have access to the service.

2.5.2 Language

According to Alemna (1999:168) another important barrier to information flow is linguistic. He asserts that 90% of the databases on the Internet are in English. The implication for African countries with a different colonial history is that two countries that share a borderline may not be able to exchange information in spite of their locations, for one might be French speaking and the other Portuguese or English speaking. Grulke (1995) in addressing the language issue suggests that there would be an even greater achievement in the area of information flow if there could direct speech interfaces with all kinds of computers. In this case the illiterate people would be able to access information. All citizens would have access to the new information services and benefit from the new opportunities created there.

2.5.3 Standardization

In developing countries, there is also the problem of the standardization of hardware facilities. The information superhighway has engineered the importation of various brands of information technology by developing countries. Some countries can afford to get relatively new equipment but in most cases developing countries acquire it in the form of donations and most of it will be used and outdated material. As a result, the developing world, and especially African countries, become dumping ground for different brands. There is always a mismatch between imported systems and the local environment.

Adam and Wood (1999:314) assert that imported technologies are designed to operate in an air-conditioned, dust free environment with a good maintenance support. In developing countries equipment has to be used in unfavourable conditions with unreliable power supply and maintenance support is poor.

2.5.4 Illiteracy

Illiteracy in developing countries is one of the serious constraints to the effective use of information technology. The quality of training in information communication technology is also unsatisfactory. Introduction to physical equipment will not solve the problem of information availability and flow unless it is coupled with human capacity and skill. Lack of infrastructure remains the main setback to the development of information communication technologies in developing countries. Infrastructural constraints such as unreliable telecommunications and energy supplies pose serious problems for full utilisation of such technologies. Adam and Wood (1999:318) point out that local telecommunication are characterised by a large gap between demand and supply, poor connectivity, low level of maintenance, inadequate management and limited access to rural areas. Telephone line failures and electric blackouts are frequently experienced.

2.6 ALTERNATIVE STRATEGIES

For the developing countries to become part of the information society, it is essential for them to acknowledge the importance of information infrastructure in the acceleration of economic and social development and to participate fully in the global information economy. Alemna (1999:169) notes that

developing countries have an urgent need to intensify their efforts in the acquisition and use of information communication infrastructures if they are not be continuously left behind.

2.6.1 Toward an information society

Suggestions have been made by several studies regarding ways of going around the constraints of free flow of information and the development of information infrastructures in developing nations

The then Deputy President of South Africa Mr Thabo Mbeki in his speech at the opening of the G7 conference in 1996 highlighted the issue of content. He stressed that developing countries are extremely interested in ensuring that they are not consumers of predetermined information content and that they should be producers and exporters of information and therefore significant participants in the creation, production and formation of information content. This will address even the problem of language interface.

This effort towards becoming part of the information society should be global in nature involving several actors (both domestic and international) such as investors, finances, manufactures, educators etc. In an attempt by the developing nations to build their information communication infrastructure international cooperation should be enhanced.



2.6.1.1 How to get there

The need for developing countries to join the information society cannot be overemphasized. The big question is how they should go about it.

2.6.1.2 Leapfrogging

Rudasill (1998:103) points out that the west should not assume that the less developed countries will follow the same path to development as they did. He alleges that developing countries have the

opportunity to leapfrog into the new era. According to Alemie (1998:182) the emergence of the global information infrastructure presents an extraordinary opportunity for developing countries to leapfrog into the information society. The new low cost options for local connections, competing global operators for long distance services, digital transmission and low cost, reliable, simple network access with increasingly sophisticated terminals allow developing countries to leapfrog the industrial world's enormous investment in weird local loops, the most expensive part (Alemie, 1998:182). The least expensive wireless technology can be used by the developing countries to penetrate the global economy/markets.

The leapfrogging theory is based on the belief that there are certain interactions in the development of information technology that the developing countries do not need to concern themselves with. Grulke (1995) noted that in the fast moving global economy developing countries cannot afford to pursue the catch-up strategy because the speed of change is simply too profound.

He envisages a situation where developing nations will become global leaders in a few niche markets. This will be realised only if these countries can focus their energies and play leapfrog. The focus should be towards satisfying global customers. The leapfrog theory should not be taken to mean that people can bypass the so called traditional literacies of reading and writing and land into computer literacy nor that the information technology will meet all their information reading needs (Nassimbeni 1998:157). An observation made by Adam and Wood (1999:314) is that any leapfrogging in information communication technology will depend on the attitudes and ability of each country to overcome the large number of social, political, technical, infrastructural and economic challenges. Leapfrogging will only be effective if transfer of hard technologies is accompanied by use of soft-technologies, training, institutional capacity and support (Nassembeni, 1998:157).

2.7 INFORMATION AND COMMUNICATION TECHNOLOGY DEVELOPMENT IN BOTSWANA

As already noted, information and communication technologies are rapidly transforming economic activity in the enterprise centre of developed nations. In recent years, Botswana has also experienced a rapid increase in the use of emerging information and communication technologies. The growth in use of the Internet services has been particularly noticeable due to Internet service providers. However patterns of diffusion of information communication technologies, thus, far, have been felt only within the modern urban-based sectors of the economy (Duncombe, 1999:62). This has been due to heavy concentration of industry and commerce in two main urban centres of Gaborone and Francistown.

2.7.1 Provision of information communications infrastructure

The enabling role of government will be to provide the necessary investment in infrastructure which will enable the business enterprise sector to access and use emerging technologies. Government plays a crucial role as the dominant purchaser of information communication technology goods and services. It could be argued that the long term viability of information communication technologies in Botswana will be determined by the strength and efficiency of the private sector, particularly business enterprises in areas such as software development, network support and services provision. The potential for information communication technology utilisation within some Botswana small and medium size business sectors is high due to the existence of a relatively high sophisticated transmission and access network. According to the New Telecommunications Act of 1996, Botswana has wisely invested in a highly sophisticated fibre based transmission network together with a series of high capacity digital exchanges and is continuing to provide an environment which will be conducive to increased private and public sector communication platforms and value added services. Although Botswana still lags behind in terms of telecommunication coverage and other high speed services countrywide, it compares fairly well with its regional neighbours and show a very high rate of Internet usage (See Table. 2.1).

COUNTRY	TELEDENSITY MAIN CITY	TELEDENSITY COUNTRY WIDE	ISDN USERS	INTERNET USERS
	Main lines per 100 inhabitants	Main lines per 100 inhabitants	(000)	Per 10,000 Inhabitants
South Africa	41.52	10.05	35.11	145.78
Botswana	17.95	4.83	0	33.42
Zimbabwe	6.32	1.47	0	1.68
Zambia	2.4	0.94	0	1.03
Tanzania	2.3	0.3	0	0.16
Lesotho	6.29	0.9	0	0.24
Swaziland	20.87	2.1	0	5.33
Namibia	25.28	5.06	0	0.74
Mozambique	2.4	0.34	0	0.28

Table 2-1 Selected Telecommunication Indicators from SADC Region.

Source: World Telecommunications Indicators 1998

Botswana has one of the most advanced high capacity transmission and switching networks on the African continent. The ability for the business enterprises to take advantage of the countrywide and international communications is determined by their ability to connect to their local exchange through existing access networks. Formal methods of media-based marketing for communication with customers are generally not used in the small/medium sized businesses in Botswana. There are however growing opportunities for the use of media -based marketing and advertising techniques. The emerging information communication technologies offer Internet based marketing and advertising opportunities. The emerging information communication technologies will extend the choice of communication methods. The Internet has been the fastest growing emerging technology amongst business users, and is mainly used in the service sector. In Botswana the Internet is used mainly as a method of accessing information rather than as a tool of business promotion. The world has entered an information age and Botswana must enter it on an equal footing with other nations. The country must seek to acquire and

use the best available information technology and become a regional leader in the production and dissemination of information

2.7.2 Information technologies in Botswana

The government has made a strong commitment to expand the use of information technologies within the country as a whole. Botswana's Vision 2016 Document (1997) states that the new millennium will usher an information driven society throughout the world, and ensure the participation of Botswana in these developments. An information age working group will be created with the mandate to formulate a national information vision, policy and information technology strategy, as well as coordinate the currently fragmented information infrastructure in the country. (Botswana Government,1997:41)

The government has made large -scale investments in computer networking of government departments and public services. The financial sector, including banks and insurance companies have also invested heavily on country-wide networking and intranets and they have also brought IT based services to the general population through the availability and use of cash cards.

2.8 CONCLUSION

Development of information infrastructures in developing countries is to a large extent dependent on the convergence of telecommunications and computer networks. There is hope that the impact of telecommunication on education and productivity and the ability for developing nations to compete internationally will grow remarkably by the early years of the 21st century. Government intervention in the development of telecommunications in these countries will increasingly impact on their ability to achieve world-class productivity and cost efficiently in all sectors of the economy. The next chapter gives an in-depth overview of what information management involves, the techniques employed in managing information effectively and the skills for proper information management.

CHAPTER 3

INFORMATION MANAGEMENT IN CONTEXT

3.1 INTRODUCTION

In this chapter, the concept of information management will be explained. The chapter also focuses on the management of information as a resource. Information should be regarded as an economic resource and should be managed just like other resources such as capital, finance and labour. The only difference is that information has unique features and hence should be managed accordingly. Developing countries should come to realize that for them to have the same bargaining power as the developed nations, they should pay more attention to managing information strategically.

O'Brien and Helleine (in Ouma-Onyango 1997:41) maintain that economic institutions in developing countries enter forms of bilateral and multilateral bargaining in which lack of information and expertise weaken their search for alternative markets and sources of supply. Developing countries should come up with information policies that are based on their economic, cultural and historical background. The unfortunate thing is that where there are guidelines governing the flow of information or information management the emphasis is on the acquisition and use of IT hardware.

3.2 INFORMATION MANAGEMENT PRINCIPLES

Information management can be understood within the context of the importance of information as an economic resource. According to Du Toit and de Villiers (1996:1), without information, decisions are impossible. Managers are constantly seeking more and better information to support their decision making which has led to, in most cases, the growth of information systems. They further assert that to survive, every enterprise should have an information management strategy.

Broadbent (1984:216) made the observation that information management assumes a wide range of meanings, most of which are oriented towards information management in large enterprises, where the challenge for effective management is acute. She goes on to say that effective information management must be perceived to produce outcomes of value to the enterprise; to contribute to the competitive

positioning of the enterprise if in the private sector, or contribute towards the value of the enterprise to the community in the case of the public sector.

The basic goal of information management is to harness the information resources and information capabilities of the enterprise in order to enable it to learn and adapt to its changing environment (Choo,1995). Fairer- Wessels (1997:97) and Boon (1990:320) believe that to understand the concept of information management it should be looked at from different perspectives and they also believe that it can be applied at different levels as discussed below.

3.2.1 Strategic level

Information management is often seen as the corporate strategic management of information as a resource in an enterprise in order to place it in a more advantageous position than that of its competitors (Boon 1990:320). Balcome (in Fairer-Wessels 1997:98) further asserts that as the over-riding aim of information management is to manage information for the strategic and competitive advantage of the enterprise, often on a global level, information management is seen largely as a strategic function of management.

3.2.2 The Operational Level

Fairer-Wessels (1997:98) maintains that on the operational level the implementation of information management to enhance the actual production of goods and services is also imperative as this is the life-blood of any manufacturing or service enterprise. It is at this level that information management integrates both the functions of an enterprise and its various component parts.

3.2.3 Organizational Level

The objective of information management at this level is to enhance the productivity and economic validity of the enterprise so that it can remain competitively placed in the global arena. In this regard, the purpose of information management is seen as to promote the company's effectiveness by enhancing the capabilities of the enterprise to cope with changes in its internal and external environment .

3.2.4 Personal Level

Personal information management refers to the information which individuals need to manage their lives both within and outside the job situation. Here information is used to promote individual effectiveness by enhancing the capabilities of the individual to cope with the demands of their environment (Boon, 1990:320). Information management has always meant different things to different people and its definition and discussion has not been easy, judging from the various approaches from which it is addressed, information management is unfortunately mistaken for acquisition of the latest IT hardware in developing countries.

Horten (in Fairer - Wessels, 1997:98) regards managing information as a business issue. He argues that information management is not about on-line database searching or library card catalogue, nor is it about designing and managing information systems, but about managing information according to business principles.

From all the attempts by different scholars to define information management, one can deduce that it is concerned with the life-cycle management of information, from its birth to its death, that is, from its creation throughout its use, storage, retention, communication up to its disposal. Information management ensures that all information resources, services and systems in the enterprise are used efficiently, effectively and economically.

3.3 EVOLUTION OF INFORMATION MANAGEMENT

Information management evolved or emerged as a response to a number of factors such as the information explosion, complexity of modern society and the advent of technology. It emerged as an attempt to come up with new and improved means of controlling the information explosion and the resultant complexity in decision-making, by improving the flow, control, analysis and synthesis of information for decision makers (Horten in Fairer Wessels, 1997:96). Horton (1992:107) speaks of a time, not too long ago, when the prevailing common wisdom was that every man was his own information manager and that there was very little that anybody else would do to help plan to manage and control the information needed. He however now perceives a point in time when that has changed because of factors like information explosion and information technology.

3.3.1 Information Explosion

With the vast amount of information produced on a daily basis, there surely should be a way of controlling the production and flow of information. People are faced with situations where there is too much data, information and knowledge they might not use. The concept of information management emerged because people had information all over the place with no central place to find it and nobody responsible for it and surely there must have been chaos.

Fairer - Wessels and Boon (1995:180) maintain that the information explosion resulted in a body of information that expands by the minute. To survive at the work place and to function effectively in society, people have to find ways of assimilating relevant data. There is the realization that this mass of information needs to be managed. This realization resulted in the existing of the concept of information management.

3.3.2 Complexity of Modern Society

Modern society has become more complex than it was before and this has obviously had an impact on people's social and professional lives. The same people find it very difficult to cope with this change because they fail to understand that information is a life-coping resource. The need to help people understand this fact could be called for, a concerted effort to make people become aware of the value of information for problem solving and decision-making. To make people information literate and to help them appreciate the fact that to improve the quality of their lives, the need to get educated in basic information skills become the concern of many information technologists. Ettinger (1991:31) noted that the world had moved from an industrial to an information age, where the efficient exploitation of information as an economic resource and a factor of production had become crucial to the achievement of economic growth. He alleged that, in developed countries, the distribution and use of information had become matters of strategic, economic, social and political importance.

To ensure that people enjoy the full benefit of the information society, it is necessary to ensure that information is managed properly.

3.3.3 Emergence of information technology

New information technologies are transforming the very nature and structure of many enterprises, as they affect the capabilities, management roles and organizational roles (Ettinger 1991:30)

The work roles in many enterprises are changing. Many individuals in the enterprises who are not necessarily in the data processing departments now have the ability to use these new technologies for developing and using various kinds of information. Most enterprises in developing countries have reached a situation where there are technologies all over the place and a splintering and compartmentalized situation with regard to information (Fairer-Wessels, 1997:96) This then calls for a better way to co-ordinate the use of these technologies which can only be used by instituting proper information management.

The above discussion suggests that information management has, in fact, been with us longer than we can imagine. People have always used information to run their lives and information has been used in some entities such as politics and the military. The main concern became how to manage this information to service the turbulent socio-economic and political environment. More often than not information management is mistaken for information technology which is rather unfortunate. The latter is there to facilitate the management of information. Taylor and Farrell (1992:319), also concerned about this misconception, argue that the concept of information management exists apart from technology. The use of technology they say, is nothing more than a sign of the times.

3.4 WHY MANAGE INFORMATION ?

Information as a resource should be managed. If at all it is a resource it should be administered like all the resources in an enterprise. It should be managed in its own way just as traditional resources, with their varied characteristics are each managed in their own appropriate fashion. It should be noted that whichever way these resources are each managed, it is done under the broad framework of resource management. What should be noted is that information, because of its singular qualities, should be treated as a unique entity. Eaton and Bawden (1991:159), regard information as a valuable asset or resource that deserves and needs the same kind of management discipline given to other resources. He further asserts that information must be managed to give advantage to the enterprise. The corporations which will excel in future are those that manage information as a major resource. Information management according to Keary (1996:36) can be used to help enterprises identify their own core

business activities and the resources of information that are needed to support such activities. It is important to manage information to understand the way it is used so as to discern a pattern of information use that is common to particular groups of people within the enterprise. Until and unless enterprises are able to coordinate the information that they collect and create in their daily activities to improve products and services to customers, its real value will not be realized. Willard (1993:205) noted that information management seeks to make individual information resources manageable, efficient and effective so that their provision and upkeep may be consistent with enterprise policies and strategies for information generation, maintenance and development. Information management should enable information from all sources, of all types and in all forms to meet the requirements of the enterprise. Enterprises should manage their information in order to create value from it rather than collecting it for its own sake.

3.4.1 Information as a Resource

Information has very often been said to fulfil the role of a primary resource in an information society. According to Eaton and Bawden (1991:157), the change of status of information from a comparatively marginal intellectual level to a resource or commodity central to modern society has occurred in the last forty years. This they maintain has largely resulted from the work of economists such as Machiup, Porat and Bell who pioneered the ideas of the information economy with information as the transforming resource for the post industrial society.

The Colliers dictionary defines a resource as something that lies ready for use or that can be drawn upon for aid or to take care of a need. Information seems to fit well into this definition. If information is something used to generate output, then it should be regarded as a resource, considering the fact that managers use it together with other tangible resources to generate output (See fig 3.1)

OUTPUT INCOME

Product Mix

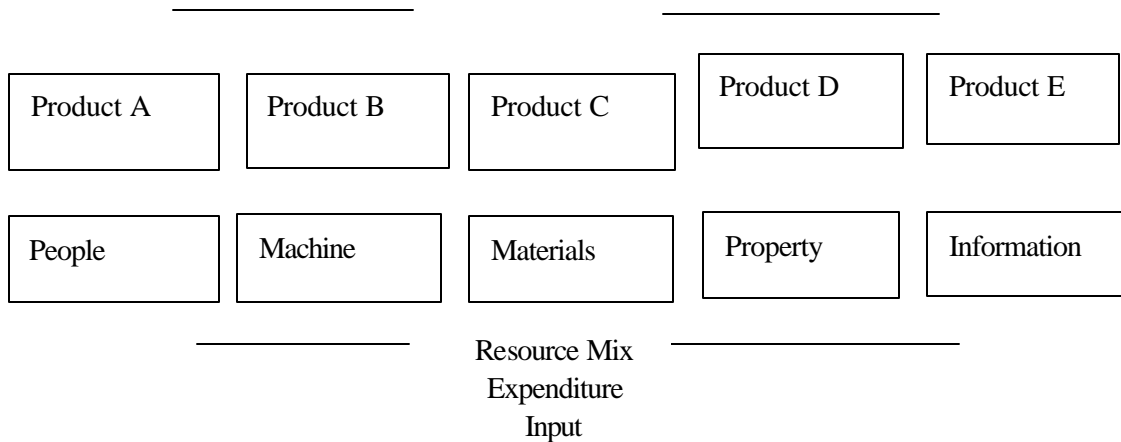


Figure 2-1 Information as a resource(Willard 1993:201)

Information is not only one of the resources but a very vital one in business enterprises. Information is essential for innovation and for turning goods and services into profit. In the public sector it may be used for meeting customer needs to target specific market sectors, for packaging, distributing and selling published product. (Keary 1996:360).

In conceptualising information as an economic resource it is advisable to consider the role it plays in enterprises and not so much its similarities to the other resources. It is not so much what information looks like or feels like but what good it can be to the enterprise.

According to Burk and Horton in Eaton and Bawden (1991:164), it is the role that information plays which distinguishes it as an organisational resource, not its similarities to the other resources. One then observes that information is a resource in the sense that it is of vital importance to individuals within enterprises. It is qualitatively different from other resources.

3.4.2 Characteristics of information

As already mentioned information has some traits that are unique to it and those that distinguish it from other resources such as labour, capital and entrepreneurship.

Smallman (1999) discusses the economic characteristics of information in the context of the nature of information products, which often have negligible marginal costs with the bulk of the costs being the fixed costs of intellectual capital and resources needed to research, develop and produce the product.

3.4.2.1 Information and its unique features

According to Smallman (1999) information has the following unique characteristics

- Information is not bound to space and can be distributed around the world, although its value can be very sensitive to time. Information is diffusive. It is difficult to secure or keep it a secret since it tends to diffuse easily from the source.
- Information can be used without being depleted. It does not depreciate in value with sharing and use. Its quality and value may increase with use.
- The distinction between the buyer and the seller may not be clear with both parties contributing to the creation of information intensive products. Customers should be integrated into the value chain rather than seeing them as passive receivers of information. As much as possible users should be able to get the information they need easily and quickly for themselves through a friendly interface.
- Information is dynamic. It changes with time and also forces the system within which it operates to change. It cannot be accumulated and stock piled in a static system. It also has the ability to bring about change.

3.5 INFORMATION MANAGEMENT TECHNIQUES

Enterprises have to adapt to the turbulent environment in which competition, market, technology and social conditions are constantly changing. Certain information management techniques should be employed to ensure proper management of information and as such to create value and place the enterprise at an advantage.

3.5.1 Environmental scanning

The past twenty years have seen accelerating rates of change in both the internal and external environments within which enterprises operate (Newsome and McInerney 1990:285). There is a lot of uncertainty in the business environment which seems, according to Duncan, in Auster and Choo (1993) to increase with complexity and rate of change in the environment. Managers today are faced with a continuous changing decision making environment. Du Toit (1993:156) affirms that the central problem for managers today is management of change and complexity arising from the enterprise's interaction with an increasing turbulent external environment.

Environmental scanning is about how these managers acquire information about their external and internal business environment. It involves researching the trends, events and emerging issues, internal and external to the enterprise, that might impact significantly on the ability to meet the company's mandate and achieve strategic goals over a period of time (Auster and Choo, 1993). It is said to be acquiring strategic information that is useful for making decisions about company strategy and long term plans. According to Newsome and MacInerney (1990:285) the economic, social, political and technological issues may be difficult to observe or predict but cannot be ignored and will not go away. Because of the uncertainty and instability in the environment in which business enterprises function, management cannot make appropriate decisions unless it monitors the environment constantly. This process of managing information about the environment will assist to identify potential threats which are likely to befall the enterprises if not observed and avoided or acted upon in good time. The environment is the source of information. Enterprises keep on getting indications and messages concerning changes that are taking place. In the process the environment is monitored in order to plan strategically.

A strategic plan can be formulated by evaluating and interpreting the future systematically by gaining full understanding of the forces in the environment that are responsible for shaping that future (Newsome and McInerney, 1991:156). In response to anticipating the hazards, Newsome and McInerney(1991:156) allege that alternative strategies could be formulated.

Drucker in Zentner (1982:12) advocates long range planning. He believes that long range (10- 15 years) planning would prevent managers from uncritically extending present trends into the future by assuming that today's products, services, markets and technologies will be those of the future. Managers are advised to avoid forecasting at all cost as the future is not necessarily an extension of the present. The amount of scanning done depends on how the executive managers would like to keep abreast of trends.

The executives tend to scan more when there is a lot of uncertainty in the environment. Environmental scanning then becomes an on-going process. It is worth noting that creating a winning strategy is not a one time event because the world does not stand still (Du Toit 1993:155). No matter how good the strategy may be today, it will not necessarily be good in the future. Enterprises change, markets change and competitors try new approaches. An enterprise may appoint an environmental scanning team of people from different levels throughout the enterprise who are trained to watch out for trends, events and emerging issues of significance to the enterprise. The team could have a leader or a coordinator. The purpose of the team would not be to solve a crisis but to anticipate it. They do so by asking questions and developing problems and not solutions. Scanners look for events that are early warning signals of changes to come and for trends that are just beginning. Their interest is emerging issues which if detected early enough may be influenced in a positive direction to benefit the enterprise. Du Toit (1993:159) suggests that information managers should be part of the scanning team because they are not tied to one way of doing things as they are used to acting in interdisciplinary manner. Their professional training in information management teaches them to be objective. The most common technique used by scanners is that of systematic watching for emerging issues or trends in publications, from colleagues, competitors and other sources. The information gathered may be charted and analysed to establish possible impacts of these trends. Scanning activities could range from gathering data by doing market research, informal conversation with colleagues or reading newspapers.

To be successful a scanning program should use a variety of printed materials. They may include magazines that explore the future and magazines in a particular area of interest. According to Auster and Choo (1993:198) there are different categories of sources from which information can be acquired and these are said to be external and internal sources further divided into personal sources and impersonal sources.

Personal sources include communicating information personally to the executives and with the impersonal, a large audience is addressed or information is transmitted through group communication activities. Impersonal sources would include newspapers, conference, trade associations and company information services.

Managers use both internal and external sources as well as personal and impersonal sources to scan the environment (Auster and Choo 1993:194). Personal sources are among the most important they

believe. They further allege that the most frequently used sources are subordinate managers, subordinate staff, customers and business associates.

Past studies indicate that scanners prefer information sources that are easily accessible, those that are physically in close proximity and those with which one does not spend much time and effort to access.

3.5.1.1 The benefits of environment scanning

Any enterprise that wants to ensure its ongoing viability should undertake some form of environmental scanning from time to time. Morrison and Held (1989), maintain that scanning the environment for trends that affect the enterprise's mission is essential for developing an effective strategic plan, bearing in mind that the future could be quickly altered if some critical but low probability events occurred.

The analysis of these trends, events and emerging issues will enable one to identify the external threats and opportunities and identify internal strengths and weaknesses. Considering that we are living in an age of future shock where change in the external environment is ever increasing and where managers are faced with a future that will most likely be different from the present, it becomes apparent that frequent scanning of the environment should be done.

Scanning for information about the enterprise's external environment helps managers to decide the enterprise's future courses of action. Scanning is not only done to answer or find solutions to specific questions but also for the purpose of finding opportunities.

3.6 INFORMATION AUDIT

The concept of information audit is borrowed from the commercial world. The idea that information represents a resource which needs effective management has raised interest in the use of information audits (Buchanan and Gibb 1998:33). The role of information audit is to provide a method for identifying, evaluating and managing information resources in order to fully exploit the strategic potential of information (Buchanan and Gibb 1998:33). It is a process of monitoring and evaluating an enterprise's information flows and resources in order to implement, maintain or improve the enterprise's management of information. Robertson (1994:31) noted that in its simplest form an information audit acts as a routine process of information gathering, sometimes limited to creating an inventory of

information resources. In more sophisticated forms, he maintains, the audit provides a mechanism for tracing and exploring information channels within enterprises. In this case, it facilitates identifying duplications and gaps and information and communication flows both within the enterprise and with the outside world.

Information auditing is usually carried out where there is a need to address issues particularly of change in the enterprise like when new technologies are introduced and when companies merge or, it may be carried out to evaluate the way an enterprise uses its information resources. Information audits are designed specifically for each individual enterprise and they may be focussed on particular tasks or service areas. Before carrying out the audit, one ought to understand the nature of the business of an enterprise, its internal environment, its structure and how it handles and uses information.

The objective of the audit must be clearly defined and understood. Proper planning specifying time and staff resources is essential for the audit to be done effectively. It is also important to investigate possible constraints such as money and time.

3.6.1 Role of an information audit

Buchanin and Gibb (1998:33) define the role of an information audit as looking at the managerial aspects of information flow by evaluating the key processes, their interactions and the information resources needed to service them.

They outline the purpose of the audit as:

- To identify the enterprise's information resources.
- To identify information requirements.

An information audit's purpose they further allege may include:

- identifying costs and benefits of information resources;
- identifying information flows and processes;
- identifying opportunities to use information resources for strategic competitive advantage;

- monitoring and evaluating conformance with information standards, legislation and policy guidelines.

Information audits are carried out at a particular point in time to provide a picture of the enterprise's information activities. Information professionals have not yet come to a point where they use information audits as a standard information management process on a regular basis the same way as their counterparts in the commercial world do for the other resources. This might be for the reason forwarded by Barclay and Oppenheim (1994:32) that although the value of information has been recognised, it is still not perceived as important as other resources. They urge the information professionals to ensure that information resources are seen as important and are controlled and managed in such a way as to maximise their potential value.

If information auditing is to acquire a higher profile in enterprises it is also important that those who act as information auditors are seen to be properly experienced and qualified.

3.6.2 Conducting an audit

Information auditing as already mentioned is a practice that involves different techniques ranging from the simplest such as taking stock of the available resources to assessment, evaluation and checking.

3.6.2.1 Stock take

This is a process through which information resources are identified and categorised in a systematic way. It is a representative of what exists within the enterprise in terms of information resources at a given moment. The result of the stock take is an inventory, a list or a register of the available resources. The advantage of this reference list is that it indicates what information resources are available for their development and exploitation for business benefit. It is important to keep the list up to date.

3.6.2.2 Information Mapping

This involves identifying different groups of information resources lying within the enterprise. A diagrammatic representation of where these resources lie is drawn. The purpose of the map is to illustrate exactly where critical information resources in the enterprise are to indicate in which department they are and their physical placement. The map will also show who uses the resources and pin point the people responsible for their up keeping.

3.6.2.3 Information Needs Analysis

Information needs analysis aims to determine what information is needed by staff members to perform their roles and achieve their goals. This is an enquiry and analysis process which involves observation and subsequent validation. Its output is usually a report the results of which are used in allocating scarce resources.

3.6.2.4 Overall Monitoring and Control Process

This involves periodic checking on management responsibilities whenever there is a specific need or concern. This can be done by way of methodical checking programmes or specially designed tests.

A properly conducted information audit programme should be able to improve the management of information resources in any enterprise. There is no doubt that information auditing has great scope for further development as a technique in the management of information resources. The key to using auditing as a standard approach to information management is to understand the mission of an enterprise and how it uses its information resources to meet its objectives.

3.7 INFORMATION POLICY

3.7.1 Information Policy Dimensions

Information policies can be formulated and applied at different levels such as social, organisational and industrial. At the centre of the formulation of information policies at all three levels is the effective use of information for competitiveness. Information is an important resource for innovation and product development. It is used by successful enterprises to increase efficiency, to improve productivity and to

enhance their competitive edge. While information policies are important to any enterprise, they are particularly important to those engaged in strategic planning and innovative decision-making.

3.7.2 Corporate Information Policy

An enterprise's information policy is founded in the statement of its objectives and, according to Orna (1992c: 107), it defines:

- The objectives of information use in relation to corporate objectives;
- the enterprise sources of information and its resources for managing information;
- the people who manage information and their responsibilities;
- the systems and technology for managing to meet the objectives of information;
- the criteria used by the enterprise for monitoring and evaluating the information activities.

It is more appropriate to develop a set of information policies each of which will be concerned with a particular aspect of information and its use. The information policy is used as an information management tool which aids the enterprise to meet its information objectives within the constraints of available resources.

Orna (1992b:3) considers the purpose of a corporate information policy as that of monitoring and evaluating the use of information to see that it is being used as intended and to see whether it is giving the results that are intended. The information policy itself should be put to test from time to time to determine its validity as suggested by Cortez and Kazlauskas (1996:95) who advises that policies that guide information acquisition, creation, transfer, processing and use should be evaluated for their effectiveness.

3.7.2 Corporate Information Policy Formulation

Policy formulation is an involved and meticulous process which takes a long time to complete. At the centre of this exercise is information for competitiveness.

3.7.3 Success Factors for Policy Formulation

For any corporate information policy to be successful and for it to serve the purpose it was intended for, full knowledge about the enterprise should be acquired. It is also helpful to foster support from top management. Orna (1992b:12) suggests that top management should be educated and be turned into advocates who will identify themselves with the policy and will be ready to take risks in promoting it.

It is also suggested that there should be a carefully chosen team for policy development with clear links with management, well defined reporting lines and adequate resources for development and implementation of the information policy.

Orna (1992b:15) advocates open minds and positive attitudes. Also, members should have a clear common understanding of objectives and criteria for assessing costs and values of information which are relevant to the enterprise's objectives.

3.8 COMPETITIVE INTELLIGENCE

Competitive intelligence is centred around the principle that information is of great value to an enterprise as well as its competitors. Enterprises need information to compete successfully. To be competitive, they need knowledge about their competitor's modes of production, the buying patterns of customers, the market etc. According to Hall (2000:139) business intelligence might also be interpreted as the act of being clever or smart, when a company surprises both its customers and its competitors with a new product or service.

Competitive intelligence is based on the fact that there is a difference between information and intelligence. It is an information management process that emphasizes the need to transform information into intelligence. Intelligence is information that has been filtered and analysed and which then can be used by managers to make the best decisions about the future of the enterprise (Dutka, 1998:16). Taylor and Farrell (1999:145) perceive the value of competitive information intelligence in terms of

reduction of costs at production levels or as attaining increased revenues as a result of bigger market share. They however note that there are other variables for optimising intelligence to strengthen competitive posture at strategic level. Competitive intelligence is realised by gearing to what a competitor will do or intends to do. By knowing ones' competitors one may be able to predict their next move, exploit their weaknesses and undermine their strengths.

Kahamer (1996:25) suggests that competitive intelligence will help the enterprise to:-

- anticipate changes in the market place;
- anticipate actions of competitors;
- discover new and potential competitors;
- learn from the success and failures of others
- look at your business with an open mind
- help implement the latest management tool.

3.8.1 Structuring Competitive Intelligence Activities

Competitive intelligence activities should be structured to avoid duplication of effort and ensure that critical issues are not ignored. Dutka (1998:15) maintains that it is essential to have a formalised competitive intelligence unit so that it can collect, put together bits and pieces of data from different sources in the enterprise which is in turn transformed into intelligence.

Competitive intelligence should be seen as an ongoing process to support management decision-making. There are four main steps to this process (see fig. 3.2)

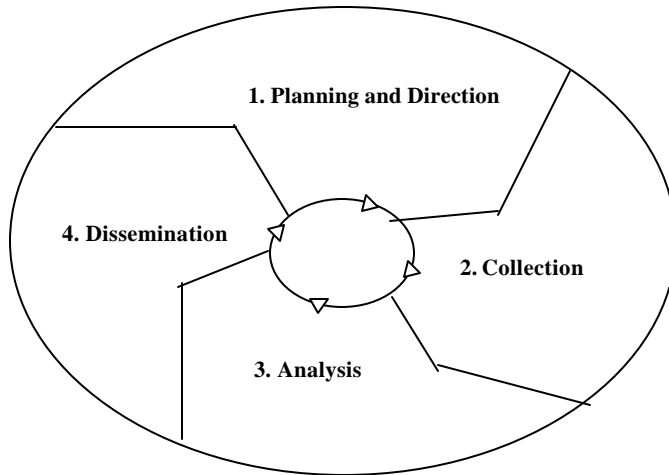
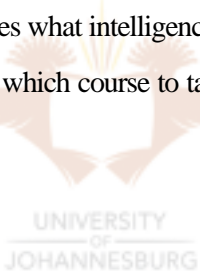


Figure 2-2 Competitive intelligence processes (Dutka 1998:15)

3.8.1.1 Planning and Direction

At the planning phase management decides what intelligence requires. It is at this phase when that the competitive intelligence manager decides which course to take in order to fulfil the task of generating competitive intelligence.

3.8.1.2 Collection of information



The second step is that of information collection, entails the actual gathering of raw data. Information is collected from different sources including electronic ones. Sources of information range from oral and written enquiries of people inside the enterprise, people outside the enterprise who know a great deal about it and other enterprises.

Formal and informal techniques can be used to gather intelligence information. Formal sources include media, government, documents and consultants. Whereas informal sources would be journalists, former employees, customers and user groups. The type of information collected includes information about product design and innovations, financial information, long term plans for expansion, details of employees and enterprise resources and customer information. The whole idea of soliciting such information is to gain advantage over the rivals of the enterprise.

3.8.1.3 Information Analysis

After collection the raw information is processed or transmitted to those who are in the best position to analyse, evaluate and develop it into an actual intelligence product. Information here is weighed and the analyst looks for patterns and comes up with different scenarios on the basis of what has been learnt. Great analytical skills are required here.

3.8.1.4 Information Dissemination

This is the last step which involves distributing the intelligence product to those who require it. Intelligence information is used by policy makers in an enterprise but it might also be useful for research and development purposes. The intelligence will also be distributed to other employees in the enterprise who can use it.

Dissemination of information must be timely and directed towards the correct persons (Dutka 1998:13). Information that is collected on a daily basis is distributed throughout the enterprise to appropriate employees.



3.8.2 Why competitive intelligence?

Enterprises of this millennium cannot go far without the exploitation of competitive intelligence. In the new business environment, management has to make decisions and make them very fast. In order to keep pace with the new speed of business, there should be efficient management and use of competitive intelligence.

Because of the amount of information produced, managers are not able to go through it all and learn about what they need to know to conduct their business. Kahamer (1996:25) believes that competitive intelligence will help alleviate the problem of information overload, because then information is not only collected but it is analysed, filtered and only the useful is selected and used for the benefit of the enterprise.

With the advent of the global economy, where competition is not only from within national boundaries, competitive intelligence will help enterprises identify new and emerging competitors. Competition has also become very aggressive. The fight for customers is fierce and any enterprise will do anything to increase market shares. Competitive intelligence allows the enterprise to predict the competitor's actions and to become proactive. Having identified what competitors are doing and communicated the intelligence, the enterprise can counteract competitor's actions.

3.9 INFORMATION MANAGER

The amount of information produced and the fact that information plays a strategic role in enterprises of all kinds calls for effective management of this resource. Effective management of information is as essential for a sound enterprise as is the effective management of other resources.

According to Roets and Boon (1992:137) the question of whether or not the information manager is necessary is not debatable, it is regarded as a generally accepted fact. An information society is characterised by information and knowledge-based enterprises, and for these to survive, the management of information and the skills to do so will be vital.

The modern information manager needs a wide range of skills in areas such as information analysis, information storage and retrieval, information technology, systems analysis and strategic management (Gillham, 1994:34).

3.9.1 Information manager: skills required

Information managers should be individuals who are trained in using data to develop meaningful information. They should translate and interpret data on the basis of the needs of the enterprise, understanding both the functioning and the possibilities of data processing and capabilities of those who use data (Casmir,1983:230) Information managers are interpreters who make available information digestible.

It is becoming increasingly clear that a person who is a data processing manager cannot become an information manager without adding a certain range of skills and without synthesizing these skills under the umbrella of a strategic approach (Herring 1991:147).These skills include communicating and

management skills. Herring confirms that employers are seeking graduates with knowledge about information technology .They should also have an understanding of business issues and be good communicators.

3.9.2 Responsibilities of the information manager

Information managers have a wide range of responsibilities which call for a mixture of specialist and generalist knowledge and skills (most of which have been discussed above) if they are to make a remarkable contribution to the overall management of their enterprises.

According Cronin (1984:27), future information managers will be responsible for information policy planning, the development and maintenance of integrated systems and service, the optimisation of information flows and the harnessing of leading edge technologies for the functional requirements of end users - whatever their status or role in the parent enterprises.

3.9.2.1 Information manager as a manager

Information managers are usually part of the senior management team within the enterprise and have roles to play as a managers as well as performing the duties of information management.

As managers of groups of people in their department, information managers face the usual human resource tasks of recruitment, staff training and retention. They also have financial roles of budget determination, forecasting and authorisation. Information managers are concerned with a wider range of issues than other managers. They are not responsible for their departments but for all departments and users in an enterprise.

3.9.2.2 Information manager as communications facilitator

The communications challenge of an information manager is to define the role of departments in the communication structure of an enterprise. His department is at the hub of the communication system (Ward 1985:131).

A further challenge is to utilise the developing corporate communication structure to initiate and improve service provision. The enterprise utilises the information transport commonly known as corporate communication network to provide the link which facilitates the flow of information throughout the enterprise and allows management to gather information required to run the business (Ward 1985:132).

The development of this network poses an enormous challenge to the information manager. He is also responsible for telecommunications.

3.9.2.3 Information manager and information technology

Information in business enterprises is mainly managed by computerised systems which means that these enterprises find information technology to be a strategic necessity. The information manager should therefore define the needs of the enterprise and those of the individuals in it. They should not only focus on their capacity to store and retrieve information but rather on their ability to use, meaningfully and adequately, what can be provided by highly sophisticated technology. The information manager also has the responsibility to develop applications, software and different systems.

3.9.2.4 Information manager and corporate information

The information manager is, above all, responsible for the management of information in the enterprise. He formulates policies and schedules of information management for the enterprise. The planning, design, implementation and management of the information systems are all taken care of by the information manager.

His tasks include the management of corporate information resources and providing information to meet user needs. Information managers should use a combination of skills and technology to process and add value to what is presented in order to meet highly specific needs and allow users to utilise the products without further processing of their own (Orma 1992a:306).

3.10 CONCLUSION

Information management as a concept should be fully understood so that it can be formalised and institutionalised by business enterprises. Information should be appreciated as a resource and be given

the treatment it deserves. The management of this resource should be carried out by fully qualified information managers with the necessary training and skills for the job.

The next chapter discusses how information management impacts on business. How information as strategic resource can position business for sustainable competitive advantage.



CHAPTER 3.

INFORMATION MANAGEMENT AND BUSINESS TRANSFORMATION

4.1 INTRODUCTION

The purpose of this chapter is to discuss the benefits of information management to business enterprises.

It attempts to demonstrate how information, if well managed, can give an enterprise an edge over competitors. Taylor and Farrel (1999:145) perceive the challenge of information management as that of convincing the business world that information is a resource that can be exploited to increase profitability and maintain competitiveness.

Competitive advantage is said to be achieved by performing activities in the value chain of an enterprise in such a way that they deliver extra value to customers Coelho (1999). Information enabled and enhanced by information technology plays an important role in creating value and achieving competitive advantage.

There are three generic strategies by which an enterprise can gain advantage over competitors in its industry:

- Be a low cost producer;
- Produce a differentiated product;
- Focus on a special industry segment.

Coelho(1999) noted that if knowledge and, by implication information has indeed become a primary ingredient of what we make, do, buy and sell, then information must be playing a role in value creation and entering the value chain at various points in an enterprise

4.2 ROLE OF INFORMATION IN MODERN ENTERPRISES

All enterprises in developed countries are facing increasing competition at a global scale and they are all part of the society that is in transition from an industrial to knowledge/information-based economy.

Abell and White (1999) maintain that whether an enterprise perceives itself as a learning enterprise, a knowledge-based enterprise, an innovative and creative company or simply one that is looking at a return on its investment in information technology, information underpins its business. It is the utilisation of information by staff and management, they allege, that creates and maintains its place in the market and determines its success in both the private and public sector.

4.3 THE LEARNING ENTERPRISE

A successful enterprise of the future would be skilled in creating, acquiring, organizing and sharing information and knowledge and applying this information to design its behaviour.

The modern enterprise finds itself involved in the process of continuous learning as a survival mechanism. Senge (in Baines 1997: 202) defines the learning enterprise as the enterprise in which one cannot afford not to learn because learning is insinuated into the fabric of life. It is about individuals in the enterprise maximising their potential through a process of self-development assisted by the enterprise.

De Gues (1988:70) views the concept of learning in terms of corporate planning. He maintains that the enterprise as a whole is involved in the planning process. In these types of enterprises specialists concentrate on their areas of specialisation and advance in those respects.

Some enterprises have not been able to learn and adapt and they perish. Those enterprises that are able to institutionalise change do survive. Change is usually brought by the enterprise's knowledge of itself and its environment. The managers of such enterprises have this knowledge and they keep on improving on it because the individuals in these enterprises are continuously engaged in learning.

Knowledge-based business enterprises should be structured around goals that clearly state the management's performance expectations. In these modern enterprises employee involvement is crucial. Workers are seen as chief agents responsible for adding value and providing continuous innovation to

institutions. The key to success involves attitude, organisation, employee involvement and a shift from adversarial to partnerlike relations with unions and dealers alike (Wong in Klein 1998:7).

Addleson (1999:3), asserts that the idea of a learning enterprise is catching on with gradual but growing recognition that many contemporary enterprises would accomplish nothing without the initiative and the commitment of the very people who, in conventional thinking, need to be regulated, controlled and directed. It is believed that employees and especially their knowledge give the enterprise its capabilities.

4.3.1 Characteristics of a learning enterprise

There are features that are unique to modern enterprises which, in fact, are essential for their success. Some of these are organisational structures, leadership and entrepreneurship.

3.3.1.1 Organisational Structure

For tomorrow's enterprise, the rigid structures of the past are serious obstacles to flexibility, adaptability and fast response. The old structures isolate the enterprise and its people from the dynamics and immediacies of a fast changing world which otherwise would compel them to engage in rapid and continuous learning (Oosthuizen, 1997: 81).

In the past the chain and command structure of enterprises was designed for a relatively stable business environment. But many fast growing sense and respond companies never adopted functional hierarchies in the first place (Haeckel and Nolan 1993:125). As it is, flexibility and responsiveness now rule the market place.

The organisational structure of the modern enterprise is different from that of the old command and control enterprise. With the new enterprise, the organisational structure is flatter. Dostal and Osler (1990:20) call for the restructuring of enterprises so that they result in flatter organisational structures that are more autonomous and more decentralised.

In these enterprises the layers of management are reduced. Usually middle management is dispensed of. In these enterprises there is only the leader at the top and followers, with their team leaders, at the bottom (see fig.4.1).

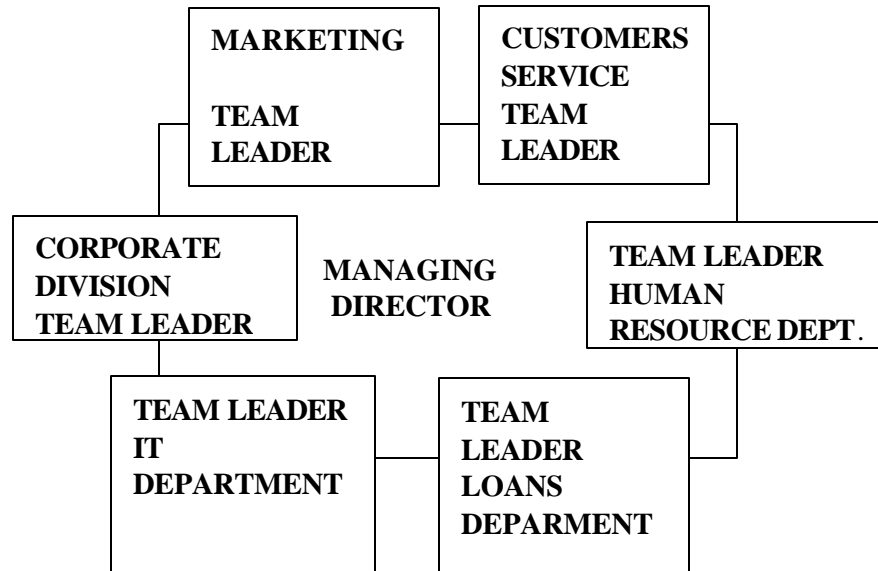


Figure 3-1 Flat organizational structure

These team leaders consider themselves leaders and not managers and that they have an obligation to provide continuous support to the followers, enhancing and ensuring enterprises continual ability to learn, adapt and innovate.

In these enterprises knowledge will be at the bottom, in the minds of the specialists who perform different tasks and direct themselves. At the centre of functional teams is a working specialist and not full time manager. He is there to direct the activities of the different project teams.

4.3.1.2 Facilitative/transformational leadership

A complex environment calls for complex styles of leadership and a transformational or facilitative leader. Senge, as in Slater and Narver (1995:69), maintains that such leaders can raise the awareness of colleagues, clients and others about issues of importance; arouse or alter the strength and values that may have been dormant or subverted and foster a climate in which enquiry and commitment to the truth are the norm.

Facilitative leaders focus on developing people around them. They are adept at motivating people who want to learn. Slater and Narver (1995:69) believe that a leader must abandon the role of the expert whose job is to teach sub-ordinates the correct way to do things. Instead they must act as coaches.;

According to Senge, (as in Baines 1997:204), the leader's role in a modern enterprise is that of a designer, teacher and steward who can build the shared vision and yet challenge the prevailing mental models.

The leader has the responsibility to build an enterprise in which staff are continually expanding and enhancing their capabilities to shape the future. The leader who is also a teacher communicates the enterprise's reality to the followers. The leader should create opportunities for the people to develop their abilities to make their fullest contribution and to deliver a superior performance. Having a true transformation leadership at the top of an enterprise, serves to shape new values and culture. Developing leaders at all levels of the enterprise provide continuous fuel for a synergistic system, enhancing and ensuring the enterprise's continual ability to learn, adapt and innovate (Wong in Klein, 1998:7).

Phipps (1993:20) alleges that transformation leaders will create the learning process. These new leaders will not see themselves as knowing the way and teaching followers but as learners joining others in the creation of the enterprise that will allow them to continually learn, change their vision and shape the future.

Bodle, in De Geus(1997:188), notes that the new form of leadership involves demonstrating a willingness to let go in a new, open, more informal and less hierarchical style of management, allocating time to get wide recognition and acceptance of the need to change; encouraging risk taking by ensuring that mistakes are not penalised if there is learning; providing necessary feedback and creating an environment for teamwork.

According to Slater(1995:16)facilitative leaders are adept at three critical tasks:

- Firstly, they articulate a clear and challenging vision for their enterprise based on their insights into key industry trends that can be the catalyst for redefining the foundation of competition.
- Secondly, they focus on developing the people around them, motivating them to want to learn and take greater responsibility.

- Thirdly, they lead in unlearning, that is, the conscious effort to challenge traditional assumptions about the company and its environment.

Pretorius (1995:13) suggests that leadership aimed at the future must be synonymous with a strong value system containing elements such as integrity, fairness, justness, respect for the individual and sensitivity for the cultural diversity. This leadership must be caring, show empathy, be willing to serve and must recognise human worth.

In the new order, enterprise leadership will become transformational and the business philosophy will be based on lasting values, sound relationship and trust. Pretorius (1996:30) goes on to say that transformational leadership stands for common goals, vision and values, the right climate empowerment, emphasis on team work, caring and a moral contract with team members.

4.3.1.3 Organisational learning

According to Adleson (1999:1) organisational learning is a process of gaining knowledge and development and developing skills which will empower us to understand and thus act effectively within social institutions such as business, government departments, schools or charities. It is a view that stresses that organizing is a social activity and that enterprises exist through collaboration. Learning is a social activity. People gain knowledge, make sense of the world and find out some things through involvement with others.

Kachinke (in Barrie and Pace 1998:40) perceives learning in an enterprise as an experience based process through which knowledge about action outcome relationship develops, is encoded in routines, is embedded in organisational memory and changes collective behaviour. Organisational learning takes as its primary goal the development of the whole person as well the whole enterprise. It has a more holistic orientation where the outcome of learning relates to more liberal qualities of mind such as the development of knowledge, understanding, sound judgement and good taste (Barrie and Pace 1998:48).

Organisational learning is concerned with the ongoing development of knowledge, understanding and insight. Organisational effectiveness can be enhanced when learning opportunities involve the acquisition and application of knowledge in ways that respect the autonomy and rationality of the learners.

Learning in an enterprise is constituted by changes in behavioural performance and it must involve knowledge and understanding. This is about continuous improvement and it is a process that involves everyone; employees and managers alike. It requires continuous re-thinking of patterns that connect and relate different elements of the enterprise and connect them with the environment. It is a process that bundles together data collection, interpretation, research, experimentation and diffusion; and it involves the individual, the team and the total enterprise (Mitki 1997:429). Murphy (1993:34) asserts that organisational learning helps the enterprise to engage in self development to gain heightened awareness of their own job skills, resulting in higher self esteem and that it helps quantify accomplishment at the individual, team, departmental and organisational level.

4.4 THE VALUE OF INFORMATION IN A MODERN ENTERPRISE

Organisational learning which characterises the modern enterprise depends critically upon information use; the capacity to harness the enterprise's information resources and information capabilities to energize organisational growth. Management and use of information support the enterprises's learning activities. People are the most valuable resource in any enterprise. These people read widely, communicate frequently with customers, competitors and suppliers. They work on a variety of projects and that is how they accumulate specialised knowledge and experience.

Information is used by individuals to create knowledge and this knowledge is in the form of representations that provide meaning and context for purposive action. Weick (in Choo, 1995) notes that people in enterprises, therefore, behave as sense makers who use information in action and information use becomes a hermeneutic process of inquiry in which understanding is realized through interpretation and dialogue. Since people are a valuable source of information, they should participate in the information collection and sharing network. Drucker (1988:74) suggests that everyone in the modern enterprise should take responsibility of information.

Information is most valuable when it is shared because each partner brings additional knowledge and insight to the situation. Members of the modern enterprise recognise their inter-dependence on each other and are willing to co-operate and share information to sustain their firm's effectiveness of their enterprise. Slater (1995:18) maintains that the necessity of effective information sharing in the modern

enterprise demands that systematic or structural constraints on information flows be dismantled and that there should be high frequency and informality in organisational communication patterns.

Enterprises that understand the importance of the accessibility and sharing of business information, the rapid dissemination of knowledge, the role of communication and collaboration among employees, have designed both human and computer based systems to achieve these goals (Broadbent 1997:14). The importance of information is a natural aspect if organized, appreciated and if possible, managed to achieve organizational goals.

Initiatives such as knowledge management programs usually rest on the assumption that people in the enterprise generate information and that they have attitudes towards information sharing. Information is moving more towards the centre of concern within enterprises. Good information management is central to empowerment in the modern enterprise. The workers are becoming more involved in the design of information through the need to share information and experience. Users' perceptions and attitudes to information are also undergoing change.

The way information is managed is very much a product of the culture and management style of the enterprise. Enterprises with a flat organisational structure are likely to have information managed as an integral part of the system and to recognise its role as an organisational resource.

Drucker (1988:49) refers to people's minds as the critical resource of any enterprise. Most successful enterprises, he alleges, emphasize innovation and creativity, and this affects the role of information. Information is, as such, used to support innovation, creativity, learning and intelligence. Turner (in Hertis, 1994: 84) believes that information and knowledge are powerful resources and should be used as a lever. As people get more information, they tend to think analytically about the way their enterprise is going. Much of the information should come from the leaders themselves.

Most modern enterprises are working out exactly what goals they want to achieve and they are using information as a way of gaining success. Information and knowledge should be able to leverage the whole enterprise to a higher level of analysis. It should actually be recognised that the value of information lies in the interpretation and the use to which it is put in the enterprise's own context. For information to be of any value, the employees should be able to place it in context. The enterprise should be able to assess and react to information quickly. Changes in organisational structure and

methods of using human resources together with the virtually universal implementation of information technology could have a significant effect on the way information is perceived and used by enterprises. Corporate know-how, human resources and information systems are being identified as hidden assets which are now emerging from the hiding. Information is very important for the functioning of a modern society. Many enterprises are aware that they need information about their internal and external environments. In an attempt to meet these needs, they acquire and invest in information technology which does not always bring a solution.

The concept of corporate knowledge is gaining ground within the business industry. Information technology and communication networks are emerging as essential tools which will enable these enterprises to keep in pace with product and service developments, to maximise the ability and creativity of staff and to make information commonly available within the enterprise (Abel in Hertis,(1994:80).

Information technology, however, can only be useful if the enterprise understands the components of the knowledge base and their value. The enterprise should assess their use of information, that is, where this information comes from and who needs it. It should determine how a variety of internal and external information inputs contribute to the enterprise's know-how.

4.4.1 **Information as a strategic resource**

One might wonder what it takes for information to be considered a strategic resource in any enterprise. Smith et.al. (1996:44) claims that perception of a strategic resource might throw light into the attempt to look at information as one. He perceives a strategic resource as any resource which is capable of providing a firm with a competitive advantage. These resources, he says, are valuable, scarce and are typically difficult to imitate.

The enterprise of the new millennium is characterised by knowledge management and information sharing. According to Martin (in Du Toit and De Villiers 1996:2) successful enterprises recognise the value of managing their knowledge and information resources efficiently and effectively. The effective handling of critical knowledge and information resources can make all the difference in the enterprise's survival against aggressive competitors. If these resources are efficiently managed, the competitive position of the enterprise can be strengthened at the strategic level.

According to Klein (1998:1) business enterprises increasingly tend to compete on the basis of their intellectual assets. They are involved in re-engineering which involves doing more with less, by working smarter, with continuous quality improvement derived from learning how to do things better over time. Enterprises tend to have an edge over others not because of their physical and financial capital, but because of their experience and expertise. In fact, a growing number of enterprises have come to realise that their intellectual capital is an essential source of competitive advantage and that it should be managed strategically. The new enterprise believes that its success depends on both information and individual's knowledge and expertise. The enterprise that has a culture that enables effective information systems development sees this culture as providing a major competitive advantage (Owens, 1996:158). On the other hand, Klein (1998:6) maintains that strategic management of knowledge which brings a competitive edge involves thinking how the enterprise creates value from a knowledge centric perspective and redesigning and orchestrating the role of intellectual assets in the firms operations and strategy.

Leaders of the modern enterprise establish internal and external sources to obtain objective information about their enterprise and its environment. Through their complex communication, coordination and conflict resolution processes, learning enterprises reach a shared interpretation of the information that enables them to act swiftly and decisively to exploit opportunities and defuse problems (Slater, 1995:18).

Through its external emphasis on developing information about customers and other key market influences, the learning enterprise is well positioned to anticipate the developing needs of its customers. This gives it an advantage in both speed and effectiveness in response to opportunities and threats. Because of its external emphasis on developing information about its customers and competitors, the new enterprise is well positioned to anticipate the developing needs of its customers and respond to them through the additional innovative products and services. This usually places them ahead of their competitors.

Employees in the enterprise of today share information about business trends and competitor's activities to maintain a competitive focus. Their leaders freely provide information about things such as productivity, inventory and quality to share success and quickly identify problems (Slater and Narver 1995:69). Winning enterprises are exceptional in their ability to anticipate and to act on opportunities in

the turbulent and fragmenting environment. They also make extensive use of information technology such as electronic mail and shared databases. As Haeckel and Nolan (1993:122) note, the executive crew (top management) pilots the enterprise using controls in the information cockpit of business to respond to the readabouts appearing on the console, modifying the business plan based on changes in the external environment, monitoring performance and sending instructions to functional units.

4.5 INFORMATION MANAGEMENT AND INFORMATION TECHNOLOGY

The most significant way in which an enterprise can increase the value of information it is acquiring is increasing the speed with which the information is acquired and acted upon. This can only be realised by embracing information technology in doing business. Enterprises with fully developed information networks will have an edge over their competitors in the new millennium. Information technology can improve effectiveness. The challenge to managers then is to practise information management as an informed response to the opportunities of modern information technology related to the needs of the business.

Today managers need to be exposed to advances in information technology and details about their advances. Granger (1996:85) suggests that they should be introduced to the basic Internet facilities and that integrating the Internet into business enterprises offers management greater preparation for the ever changing demands of the work environment.

4.5.1 The Internet and business

Many business opportunities are arising on the Internet and business enterprises have to transform themselves to take advantage of them (Angelides 1997:405). Today, small and medium sized business enterprises are operating in an increasingly unstable market place characterised by change. Changes in the environment are dominated by technological advances affecting telecommunications and information processing. Of all the changes, the use of the Internet is the one that has been mostly echoed. It has in fact raised issues pertaining to the use of technology to obtain additional resources for small and medium sized businesses.

Internet communications technology makes it possible for smaller companies to take advantage of the cost effectiveness of organising the supply chain to maximise competitive gain. The use of the Internet will improve cost control and will also facilitate faster and more accurate order-processing capabilities. The Internet has the potential to become a major strategic information tool for commercial enterprises (Cronin et al 1994:204). . Companies of all shapes and sizes, are finding that the Internet provides new opportunities for competitive advantage. Many enterprises are using the Internet to gain an edge in an increasingly competitive business environment. This is particularly the case in developing nations. The Internet provides the company with competitive advantage by getting it out of its own little world, and it does not only let the people on the net know about its products but also lets the company know about people so it can create products that these people want (Cronin et al 1994:214).

The use of list serves and news groups helps the enterprise to keep an ear to the ground and to keep posted about the new items of interest. Enterprises will be able to learn about their competitor's deficiencies from disgruntled users who utilise the net to complain about what they cannot get from the vendors.

Announcements about new products and users' comments on products of the enterprise and its competitors benefit the enterprise. Prices of products similar to that of one's enterprise can be observed so that one may price competitively.

The Internet is changing the nature of the relation between enterprises and their external environment especially their customers. It is changing the way marketing is integrated into business strategies.

4.5.2 Customer service

In customer service, the Internet offers global access to companies and individuals by linking customers to companies, and visa versa, much faster than traditional service methods and at much lower costs.

Perhaps no area of information is so critical to organisational success as the tracking down of customer tastes and preferences. Any enterprise must reach out to the customers in their targeted market. Customers will, through the Internet, gain awareness about business and its products and services. Providing efficient and effective service to customers will increase customer loyalty and lead to cost savings. According to Coelho (1999), competitive advantage is achieved by performing activities in the

value chain in such a way that they deliver extra value to customers. Information enabled and enhanced by information technology plays an important role in adding value and achieving competitive advantage.

4.5.3 Marketing

Internet marketing will become the central strategic tool that will gain a competitive edge for those companies that embrace it. It is likely to revolutionize the way marketing and business is done. In marketing, the Internet is considered an opportunity for reaching new consumer groups and an alternative way to offer low price and value added products and services. The Internet can perform value added marketing by using the technology to gain market share with low cost and timely performance.

Web trading can add new customers with little or no extra cost. A website can serve the electronic equivalent catalogue. However the website has an advantage over the catalogue in that it offers valuable interactive service to customers; it facilitates feedback from customers and orders can be taken and products sold online.

The Internet can be the best business tool as it operates 24 hours a day and the fact that it can access markets across the world makes it indispensable.

4.6 CONCLUSION

Information management to be very crucial in business enterprises in the world of today. Only those enterprises that are aware of the changes in their environment and which manage information and use it strategically to respond appropriately to these changes are likely to learn and survive.

The following chapter focuses on the empirical survey of the study. It attempts to investigate the extent to which financial institutions in Botswana manage information. A structured interview was conducted to solicit as much information as possible for the purpose of establishing whether these enterprises use information strategically or not.

CHAPTER 4.

EMPIRICAL SURVEY

5.1 INTRODUCTION

The preceding chapters give a theoretical background of what information management is and how information management can be a source for sustainable competitive advantage. This chapter investigates the status of information management in financial institutions in Botswana.

5.2 DEVELOPMENT OF FINANCIAL INSTITUTIONS AND SERVICES IN BOTSWANA

The financial system of Botswana currently includes the central bank, four commercial banks, one investment bank, a finance and leasing company, a building society, a development bank, ten insurance companies, several pension funds, two financial parastatals and informal money lenders.

5.3 REVIEW OF THE FINANCIAL SECTOR

The 1990's have been a period of considerable change for Botswana's financial sector. By the late 1980's it was recognised that the financial sector faced several shortcomings and was in need of reform. In 1989 the World Bank produced a report that focused on financial reforms that would support the objective of economic growth and diversification during the 90's and beyond.

5.3.1 Commercial Banks

By the end of the 1980's the commercial banking system was dominated by two long established banks, the Barclays Bank and Standard Chartered Bank and this meant very limited competition.

In 1989 the Bank of Botswana which is the central bank liberalised its policy for the licensing of new banks. Under this policy the licenses were issued on the basis of whether the prospective bank was sufficiently capitalised and if it had access to the necessary skills and resources to ensure a sound banking operation (Kgosi,1999:15). The objective of this policy was to allow for the new banks to

enter the market in order to promote competition and efficiency within the finance sector. As a result of this policy two more banks were registered. While the establishment of new banks and hence the strengthening of competition is encouraged the small size of the domestic market remains a constraint.

5.3.2 Non-Bank Financial Institutions

The major non-bank financial institutions include the Botswana Development Corporation (BDC), the National Development Bank (NDB), the Botswana Building Society (BBS) and the Botswana Savings Bank (BSB). There are also a number of non-bank financial institutions including leasing companies, insurance companies and pension funds.

Over the past decade efforts were made towards restructuring and strengthening non-bank financial institutions. The establishment of development finance institutions such as BDC and NDB has played an important role with regard to the development of long-term finance/loans policies. However, the expansion of these always lagged behind those of commercial banks because of the risky nature of long term lending.

Despite the successful transformation and growth of the financial sector, there remains concerns about the efficiency of customer service. The upgrading of service delivery is a challenge for the Bank of Botswana as a supervising and licensing authority.

5.4 BRIEF BACKGROUND OF FINANCIAL INSTITUTIONS

5.4.1 Botswana Development Corporation(BDC)

Botswana Development Corporation is a development financial institution, and it plays a significant role in economic development through its activities as an investor and financial guarantor.

It has the most diversified lending portfolio of any of the financial parastatals. Its activities include lending to all sectors of the economy. These would include manufacturing projects, construction, agricultural as well as health services.

5.4.2 National Development Bank (NDB)

National Development Bank is a development finance institution. Its main objective lies in providing a varied range of financial services to Botswana's business sector. Unlike commercial banks NDB's core business is directed solely towards the business community. They cater for small, medium and large enterprises. The bank also manages different government projects. NDB believes that banking is less about money and more about providing quality service to their customers.

5.4.3 Botswana Building Society

Botswana Building Society is registered under the Building Societies Act as a housing finance institution providing mortgage loans for private residential property development. It finances its lending operations from the sale of shares, and acceptance of deposits from the public.

5.4.4 Botswana Savings Bank (BSB)

The savings bank was established in 1992 as a successor institution to the Post Office Savings Bank. The bank's main operations include the collection of deposits from customers not catered for by commercial banks.

In terms of investments and income earning operations, the bank is concerned with property investments, government motor vehicle loan scheme and a limited housing loan scheme for civil servants.

5.4.5 Metropolitan Botswana Insurance Company

Metropolitan Botswana was established in 1997. The company's main focus is on investment only products and product packages such as pure endowments and retirement annuities. Within the three years of its establishment, Metropolitan Botswana has experienced an exceptional growth. By July 2000, it already had 19,000 individual life policyholders.

5.4.6 Botswana Insurance Company

Botswana Life Insurance Limited (BLIL) is the nation's largest life insurance company, with a 24-year history in Botswana. It has wide representation throughout the country. Decentralisation of client services is seen as the way forward for the company to improve its services. The company has retained good corporate business serving leading institutions. The company underwrites all classes of long term insurance, underwrites deposit administration schemes and manages investments and administration of life and pension funds.

5.4.7 Dynamic Insurance Brokers

Dynamic Insurance Brokers is a registered brokerage which has been in operation for five years. It is entitled to handle all classes of short and long term insurance. The management team of Dynamic Insurance Brokers has qualified and experienced personnel and the expertise, integrity and commitment to provide the best possible service at all times.

5.4.8 Regent Insurance Company

Regent Insurance Company falls into the category of fire and casualty insurance companies. It has been operational for just over two years. The company insures its policyholders against loss and theft of motor vehicles. They receive funds through premiums for their policies.

5.4.9 Stanbic Botswana

Stanbic Botswana is a newly established bank, which specialises in serving corporate entities. The bank's head office is in South Africa where its director is stationed. Stanbic Botswana has branches in the two main cities of the country. It is a fairly small commercial bank with a staff compliment of 177.

5.4.10 Standard Chartered Bank

Standard Chartered Bank of Botswana is a long established bank(1897) and for years its only competitor was the Barclays Bank of Botswana. The bank has branches all over the country operating both personal and corporate accounts.

5.5 QUALITATIVE RESEARCH

In social sciences, there are two approaches to research which can be divided into the quantitative and qualitative approaches. Fraenkel and Wallen (1993:280) define qualitative research as a process whereby researchers go directly to the particular setting in which they are interested to observe and collect their data. Qualitative research is particularly interested in how things occur.

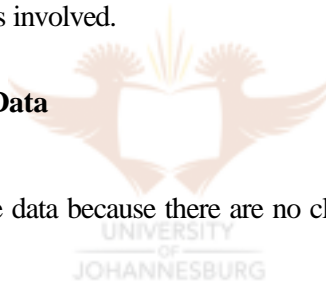
5.5.1 Application of the Qualitative Approach for this research

Data was collected by way of a structured interview. Interviews are a method of collecting data in which selected participants are asked questions in order to find out what they do, think or feel (Hussey and Hussey 1997; 156).

Interviewing in qualitative research makes it easy to compare answers. It is also advantageous because the individual being interviewed is encouraged, by the use of open-ended questions. There is also dialogue between the researcher and the respondent which allows for interaction and which provides for in-depth understanding of the issues involved.

5.5.2 Analysis of Qualitative Data

It is not easy to analyse qualitative data because there are no clear set of conventions for analysing qualitative data.



One way of analysing qualitative data is to quantify data, turning qualitative data into numerical data. One may also choose non-quantifying methods of qualitative data analysis. Some methods of analysing qualitative data as suggested by Hussey and Hussey (1997: 248) include general analytic procedure, cognitive mapping, data displays, grounded theory and quasi-judicial methods. The author chose to use grounded theory.

5.5.3 Research Sample

The researcher selected ten financial institutions in Botswana. Interviews were conducted with the general managers of the institutions.

5.6 GROUNDED THEORY

When using the grounded theory to analyse data, the first thing that the researcher does is to code information. The codes are some sought of labels that make qualitative data easy to separate, compile and organise (Hussey and Hussey 1997: 249).

Some of the codes include axial, open and selective coding. The grounded theory, according to Hussey (1997:266), requires the discovery and creation of codes from interpretation of data. Selective coding which is a process of selecting the core category and systematically relating it to other categories and validating their relationships is the method that is chosen for this particular research work.

5.6.1 Procedure for Organising Data

In order to organise and categorise the data obtained through the interview schedules the following procedure was followed:

- all recorded interviews were transcribed verbatim
- the completed transcripts were carefully analysed according to selective coding (Hussey and Hussey 1997:226). From this coding categories were developed that reflect the responses of the respondents.
- according to selective coding eleven core categories were identified as follows:

Understanding information management; information as an economic resource; identifying information needs; existence of a formal information policy, linking information planning to business strategy; information technology use; information management and competitive advantage, environmental scanning; managing information sources, existence of an information management unit and critical business information.

- data was analysed and the findings discussed.

5.7 ANALYSIS AND INTERPRETATION OF DATA

In the following section the responses are presented under the eleven categories mentioned above. The core categories are arranged according to the sequence of questions in the interview schedule. Under each category the data are analysed and interpreted.

5.7.1 Understanding Information Management

(Covered by question one in the interview schedule)

Analysis

The respondents had various interpretations about the meaning of information management. Two respondents believe that information management is about collecting, organising and disseminating information within the company.

Three respondents felt that information management is concerned about how information is used within the company for decision-making, and for strategic planning.

One respondent understood information management to relate to the importance of information for the survival of the enterprise.

One respondent perceived information management as coordination of information that one collects about the company and its competitors in order to use it strategically and to put oneself in a competitive situation.

Three respondents felt that information management is about the correct keeping of information or organising information in such a way that it can be used easily. The respondents alluded to the fact that there is need to put information in an organised manner to facilitate its proper use in decision making and to disseminate it to others.

Interpretation

Information management is a fairly new concept to most people in the business world. Most find it very difficult to define. In most cases it is understood to mean efficient keeping and dissemination of information that is already available in the enterprise, the ability to store information and make it available whenever it is needed. Information management should entail continuous collection of information about both the internal and external environment, regulating the flow of that information and using it to gain an edge over the competitors of a given enterprise.

5.7.2 Information as an economic resource

(Question two of interview schedule)

Analysis

All the respondents regarded information as an economic resource and that it should be managed just like all the other resources in the company. It was mentioned that information is very crucial to the survival of business and that without it there is no business.

Two of the respondents mentioned that information is even more important than all the other resources in the company.

Interpretation

The importance of information as an economic resource is well known to most if not all in financial institutions. In their field of operation where service is provided directly to the customers it has become apparent that information is very critical and should be given the same treatment in terms of appreciating its importance as all the other resources.

Information is a critical economic resources and it provides the basis on which companies propel their direction in a competitive environment.

5.7.3 Identifying information needs of stakeholders

(Question three of the interview)

Analysis

One respondent gave an elaborate account of how they identify information needs of both their staff and customers and how they disseminate information to both.

Two respondents mentioned that they collect information about the market and the competitors and keep customers informed about what is happening in the enterprise.

One respondent put emphasis on communication with staff, keeping them informed about what is going on in the company without trying to establish what they want or need to know.

One respondent mentioned that they were setting up an information system and before they could do so they had to look into the information needs of their staff and potential clients.

Five respondents claimed that they do all they can to establish the information needs of their staff and clients and they in turn keep them informed about what is going on in the enterprise.

Interpretation

Information management entails continuous gathering of information about stakeholders. The enterprise should have in place the system of gathering information about its stakeholders and also a means of disseminating information to them. It is important to carry out information needs analysis to determine what information is needed by staff to perform their roles.

5.7.4 Existence of a formal information policy

(Question four for interview schedule)

Analysis

Three respondents confirmed that they did not have an information policy but that they see the need to have one. Two of these said they were in the process of developing one.

Two respondents were not aware of whether there was a policy or not. They said that, if at all it was there, it comprises different policies appearing in fragmented forms. These two respondents did not think that there was need for an information policy anyway, people just happen to know what information they have access to.

Three respondents disclosed that they did not have an information policy and they did not see the need to formulate one as long as they have guidelines on information use. They were happy with the guidelines.

Two respondents claimed that they had an information policy in place. One however pointed out that the policy was not committed to paper. It is like procedures in the company, but as far as they are concerned they had a policy.

Interpretation

It is evident that it is essential to have in place a policy to regulate the flow of information in any enterprise. This policy should be well defined and it should be written down in black and white. The information policy is used as an information management tool which aids the enterprise to meet its information needs and also defines the objectives of information use.

5.7.5 `Linking information planning to business strategy

(Question five of interview schedule)



Analysis

All the ten respondents alleged that they definitely link information planning to their business strategy. They highlighted the importance of information in the strategic planning of business activities for survival and in order to gain an edge over their competitors.

Interpretation

Information planning is a very important component of the business strategy. In the service industry especially, it is necessary to utilise accurate information in strategy formulation. The effective handling of critical information enhances the company's strategy and makes a difference in its survival against aggressive competitors. If the information resources are efficiently managed, the competitive position of the enterprise will be strengthened at the strategic level.

5.7.6 Information Technology

(Question six of interview schedule)

Analysis

Two respondents said that they do not use IT much or at least as much as they should be using it. One company reported that it was still trying to put in place a system that would ensure the prevention of fraud. They are much slower in this area as compared to their competitors. The enterprise has a website that is centralised and which can only be accessed from the IT room.

Eight respondents claimed that they use information technology a lot in their information management activities. They expressed the feeling that without their computers there was not much they could do. One even expressed the fact that their aim is to become a paperless company. These enterprises experience the problems of access at times due to the problem of inadequate infrastructure but otherwise they acknowledge that they would not go far without the use of information technology.

Interpretation

It is evident that information technology is very important for information management. The speed at which the enterprise is able to acquire information and act upon it is crucial. This will enhance the value of this information to the enterprise. Information technology may improve the effectiveness of a company. Information technology should be seen as a facilitator in the process of managing information.

5.7.7 Information management and competitive advantage

(Question seven in the interview schedule)

Analysis

Three respondents believe that information management helps them to position their business for competitive advantage by obtaining information about their competitors, knowing who they are and what they are doing. By doing this, can they determine how they can beat them. One of the three also

mentions studying market trends so that they can align themselves in the same direction with the competitors or even become leaders.

One respondent emphasizes gathering information about the customer's needs. By doing so they feel they will meet these needs quickly and please the customer and stay ahead in business.

One respondent noted that in the process of information management, analysis of information helps the company to establish its weaknesses. It also helps a company get information that will give it a competitive advantage over others.

Four respondents confirmed that information helps business enterprises to stay ahead of others, without saying how. They point out that if they do not manage information well, they might not succeed in business world.

One respondent alleged that establishing a network would ensure quick processing of information, quick responses and a chance of staying ahead of their competitors.

Interpretation

Information management is an essential tool for beating other competitors. Enterprises need to manage their information well in order to compete successfully. To stay ahead, they need information about themselves, about the environment in which they are operating and about their competitors. To survive every enterprise should have an information management system. All information management techniques should be employed to ensure proper management of information.

5.7.8 Environmental Scanning

(Question eight in the interview schedule)

Analysis

Two respondents claimed that their enterprises do scan the environment for changes and trends. They do this on a weekly basis. For these two there are people who are assigned to do so. One management of a company said he is given feedback about changes observed in the environment, at every meeting they hold.

One respondent said that scanning the environment was very important without saying whether they do it or not. The assumption, though, is that they do it because in the banking sector, where they are dealing with people's money, they would not want to part with a dime, so they need to know what is happening around them.

One respondent disclosed that they do not scan the environment for changes and that they were in the process of establishing a research department that would take care of that.

Two respondents claimed to be scanning the environment all the time, that is on a daily basis. There is no policy regulating that but all the managers are said to be on the look out for any changes that may occur in the environment.

One respondent reported that they check if there are any changes in the environment on a monthly basis and they compare the information month by month, to determine if there is any define trend.

Two respondents said that their enterprises have officers who constantly look for changes and these advise the company accordingly. For one, it is done by the Human Resource Manager and for the other by the Manager Corporate Development (who is an economist).

One respondent confirmed that they noted what is happening around them. The information collected about the environment is reviewed on an annual basis.

Interpretation

Environmental scanning is one essential aspect of information management. Scanning the environment for trends that affect the mission of an enterprise is important for developing an effective strategic plan. Analysing these trends, events and emerging issues enables the company to identify external threats and opportunities and also identify internal strengths and weaknesses. Most businesses are aware that what is happening in their environment has a bearing on their activities but this technique is normally not fully optimised.

5.7.9 Organising and Managing Information Resources

(Question nine on the interview schedule)

Analysis

The analysis that follows focuses upon the different ways in which information sources are treated by the various respondents.

The information sources are organised in the following manner;

- a) Management information (all ten respondents)
- b) Internal documentation (all respondents)
- c) Competitor information (five respondents)
- d) External information (five respondents)

The other respondents who were not mentioned either did not have their external information sources structured at all or they were semi-structured. Some claimed they were in the processes of organising them.



Interpretation

Information management is about managing information from the time it was created throughout its life cycle up to the time that it is disposed of. It is important to have the sources well organised and have a list of what is available for their development and exploitation for business benefit.

5.7.10 Existence of a Formal Information Management Unit

(Question 10 in the interview schedule)

Analysis

Seven respondents confirmed that they did not have a formal information management unit. Most of those who did not have it noted that their companies were too small to have such a unit. One said they were looking into establishing one.

Three respondents said they had a formal information management unit. For one, it was still in its infancy. It is still being set up. None of the staff who are already in this unit has information handling skills, but the enterprise intends to employ them. For the other respondent, the unit is the responsibility of the Public Relations office. They however ascertained that they may consider people trained in the area of information management. The third respondent who claimed the existence of this unit in his company, referred to their information technology department as their information management unit. He claimed that this unit was staffed with personnel that have information handling skills and that they were not just a bunch of technicians.

Interpretation

Most enterprises have no clearly defined units for handling information. There is no central place to keep the information and nobody is responsible for it. Unless and until these enterprises are able to coordinate the information that they collect and create in their daily activities to improve their products and services to customers, its real value will not be realized. There should also be employed an information manager who is responsible for their information management department. This person should not only be trained in data processing but should also have a certain range of skills that will enhance the business strategic approach.

5.7.11 Critical business information

(Question eleven in the interview schedule)

Analysis

One respondent regards critical information as information about the market and competitors but also lays emphasis on people's skills. They said that what is most important to them is anything that tells them about new trends in the market and human resources management.

Two respondents consider information about the enterprise itself as critical. This type of information helps to get employees understand their business better. Critical to them is also information about competitors and the economy.

Two respondents were interested in clients and the market, one on current customers and the other one on potential clients.

One respondent considered critical information as information about their sales and also information about their productivity. This includes how productive the various divisions are and also the productivity of individual staff members.

Three respondents reported that, to them, the most critical information is that about customers, competitors and the economy. In other words they think information about their external environment is very crucial for their survival and for attaining competitive advantage.

One respondent thought information about the market and their competitors' activities are the most critical.

Interpretation

There is a clear indication that information is regarded as a critical resource in the respective business enterprises. The emphasis on the type of information may vary from company to company depending on the operations of the enterprise. Information about the internal and external business environment is considered strategic information that is useful for making decisions about company strategy and long term plans.

5.8 FINDINGS

5.8.1 Understanding Information Management

Information management is a fairly new concept. The respondents understood the importance of information management to the business but they gave different definitions as to what it entails.

The findings are that information management as a concept is not very common in developing countries and there are no common definitions as to what it is. However, information management, whatever the definition, to senior management of the enterprises involved in this study is important for the success of business. They alluded to the fact that it had something to do with organising and the use of information for decision-making. They are all aware of how important it is to make informed decisions.

It is suggested that the senior management of business enterprises in developing countries should be made to appreciate information management and to have a common and general understanding of the concept. The basic idea of what information management entails is present in financial institutions. What is required is for its practices to be recognised and to be formalised.

5.8.2 Information as an economic resource

All the respondents confirmed that they regard information as an economic resource. They all mentioned that without the use of information in their business they would not go far. The senior management in these financial institutions regard information as an even more important resource than others.

It was also observed that this resource was not properly managed. There is a need to conceptualise proper management of this resource in order to realise its full benefit.

5.8.3 Identifying information needs of stakeholders

It is in the interest of service institutions to gather information about the needs of their stakeholders especially those of their customers.

Information is collected so that the right decisions can be made in the area of satisfying these needs. Some of the respondents made an effort to even collect information about staff, their needs, their concerns and their abilities. They have also put in place a system of communicating feedback to staff and clients.

In order to design products and services that are relevant to the needs of the market, it is important to establish what these needs are. We have to investigate the information needs of stakeholders in order to plan information dissemination strategies to these people.

The findings in this study indicate that the respondents are aware that their stakeholders have information needs and in order to properly carry out their projects these needs should be catered for.

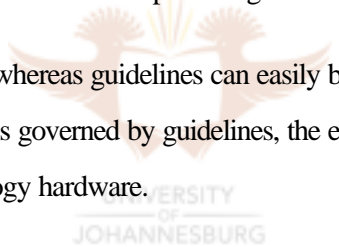
5.8.4 Existence of a formal information policy

An information policy that regulates the flow of information in the business enterprise is very important as an information management tool. It ensures a free flow of information to all the units in the company and ensures that no one hoards information from the others. People have the tendency to keep essential information to themselves especially if it is the type of information that will help them outperform their colleagues. As a result, there might be a short circuit somewhere in the enterprise and a communication breakdown.

The findings are that for most respondents, there is no formal policy pertaining to information gathering, dissemination and use. Some claim that there are guidelines as to who should use or have access to what type of information whilst others assume that everybody should know what to do with information and related issues.

It is important to design a policy that will define the objectives of information in relation to those of an enterprise. With a good information policy in place it is easy to evaluate the use of information to see to it that it is being used as intended and if its use is procuring results.

A policy is likely to be adhered to whereas guidelines can easily be ignored. The unfortunate thing is that where the flow of information is governed by guidelines, the emphasis is usually on its acquisition and the use of information technology hardware.



5.8.5 Linking information planning to business strategy

Without information planning, there might not be any meaningful strategy for utilizing information. Strategy is based on information. It is information about the company itself and its environment that determines which way the business should go. Management in the enterprises that were dealt with confirmed that information is essential for planning the business activities if one wants to survive the competition. They pointed out that their broader business strategy is supported by information.

5.8.6 Information technology use

The speed at which information is processed increases its value to business. Information technology can also enhance effectiveness. The research findings indicate that information technology is mainly used for company operations and for the creation and maintenance of databases. It is also used for project

application processes. There are certain facilities which would benefit business to a great extent if exploited. These are the Internet facilities.

The Internet provides the company with competitive advantage but exposes its activities to the global community. The Internet is also very useful as a marketing tool. With the concept of globalisation, no company can afford to ignore the use of the Internet. Some managers argued that they were not on the Internet and did not have their own websites because not many people have access to the Internet. This might be true but we are expecting more and more people to get connected in the near future.

5.8.7 Information management and competitive advantage

Information management is all about gaining competitive advantage over one's competitors. Information management enables the business enterprises to learn about their competitors and critical environmental changes. If this information is used strategically to respond to these changes, the business is likely to survive and have an edge over its competitors.

Findings indicate that most of these institutions are aware of the benefits of information management as a tool that will position their business for sustainable competitive advantages.

5.8.8 Environmental scanning

Most of the respondents claimed that they spend time scanning the environment for changes and trends in their external environment. They do this on a regular basis which is advisable as the environment keeps on changing.

One or two of them carry out a survey once a year or once in two years. This is not quite adequate as the changes are very rapid. There is a need for management or the scanners to always be on the lookout for whatever changes that occur and be able to identify opportunities. to improve the strategic position of the enterprise. Anything that might affect business positively or negatively should be noted.

5.8.9 Managing information sources

Most institutions have always kept financial and administrative information in a structured and organised manner. This is the type of information that has always been regarded as important in running a company. As for competitor information, very few of them do keep it in an organised manner. They try to find out what their competitors are doing in a somewhat haphazard manner. Findings indicate that the concept of competitive intelligence is not common yet to some companies in Botswana.

To beat business competitors, companies need information about the activities of their competitors. This information should be transformed into intelligence. Intelligence is realised by understanding what competitors intend to do, predicting their moves and exposing their weaknesses.

It is suggested that these enterprises should review the way they handle competitor information. External information sources are also kept somewhere in the enterprise but they are not given the treatment they deserve.

5.8.10 Existence of formal information management units

Findings indicate that these financial institutions do not have a formal information management unit in its proper sense. Some claim that their information technology units are responsible for managing information. It is suggested that business enterprises should have a well-established information management department headed by an information manager who is well equipped with information management skills.

The observation is that the respondents do not understand what information managers do and how they would fit in a business environment.

5.8.11 Critical business information

There are certain types of information that are critical to the survival of the business. There is an indication that the respondents are well aware of these as they mentioned that they thought critical information was information about the internal and external environment and information about their competitors.

It should be noted that it is not only about collecting this type of information that facilitates survival of business but what you do with it and, how you treat it.

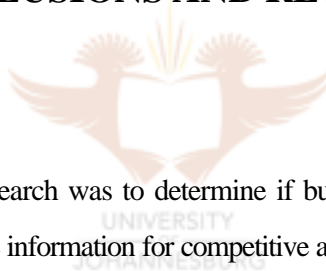
5.9 CONCLUSION

This chapter attempted to analyse and interpret recorded data according to the following core categories; the understanding of information management, information as an economic resource, identifying information needs of stakeholders, existence of a formal information policy, linking information planning to business strategy, information technology use, information management and competitive advantage, environmental scanning, managing information sources, existence of formal information management unit and critical business information. The next chapter discusses conclusions, recommendations and suggested topics for further research.

CHAPTER 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 SUMMARY



The primary objectives of this research was to determine if business enterprises in Botswana and particularly financial institutions use information for competitive advantage and if they do manage their information strategically.

Chapter two discusses the status of information infrastructures in developing countries. Information will only be managed effectively and efficiently with the necessary infrastructure in place. The chapter also addresses the role of government in developing information infrastructures. The role of government includes creating policies, laws, regulations and institutions needed for the information economy.

Discussed also are the obstacles to information flow in developing countries. These barriers include costs of establishing networks, language illiteracy and standardization. The chapter briefly discusses the development of information communications technologies in Botswana. Suggestions towards overcoming the obstacles were made. Leapfrogging is suggested as the best means for developing countries to realise an information society.

Chapter three discusses the information management concept. It addresses the principles attached to its applicability and how it evolved. The chapter focuses on the management of information as a resource. Information should be considered as an economic resource and should be managed just like the other resources in any enterprise. The only difference is that information has unique features and hence should be managed accordingly.

Information management as a concept should be fully understood so that it can be formalised and institutionalised by business enterprises. Management of this resource should be carried out by fully qualified information managers with the necessary skills for the job.

The purpose of chapter four was to discuss the benefits of information management to business enterprises. It attempts to demonstrate how information, if well managed, can give an enterprise an edge over its competitors.

Information management proves to be very crucial for the existence of business enterprises in the world today. Only those enterprises that are aware of the changes in their environment and who manage information and use it strategically to respond appropriately to these changes are likely to learn and survive.

Chapter five dwells on the empirical survey of the study. It deals with the information management situation in financial institutions in Botswana and these include commercial banks, insurance companies and financial parastatals. Structured interviews were conducted with top management in ten such institutions. The data obtained from the interviews were analysed according to the grounded theory.

6.2 CONCLUSIONS

Information management as a formalised concept is fairly new to most business enterprises in Botswana. There is no common understanding of the concept amongst managers of these enterprises. Each of them has their own understanding.

It is however evident that most if not all of them understand its importance to the sustainability of business. They acknowledge that information is very critical to the survival of the business and for staying ahead of others.

Information is not properly managed by skilled information managers. The idea of an information manager for these institutions is someone who has been in their system for a while or fresh graduates with degrees in economics or accounting. There is also much emphasis on information technology personnel. Some confirmed that they did not need any information management departments other than their information technology departments. In responding to the need to manage their information resources, business enterprises tend to put more emphasis information on information carriers and systems and not on information content.

6.3 RECOMMENDATIONS

Financial institutions in Botswana have a corporate strategy which defines what the company wants to achieve and how they intend to do it. It is of uttermost importance for these companies to determine what information will be needed to actualise the strategy and how to manage this information. Whatever way is chosen to manage this information should be aligned to the general strategy chosen to manage the enterprise.

Information availability is inadequate without the right attitude. Adopting new computer technology only raises potential information processing capacity while having adequate infrastructure improves access to global databases.

For these enterprises to function effectively and to survive the competition, it is essential to check the following:-

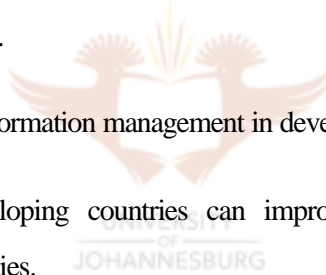
- Do any mechanisms exist to identify the costs of information assets and their contribution to the value added to the enterprise?
- Are there are policies for managing the information life cycle and for integrating the information flows into the business plan of the enterprise?
- Is information is accurate, relevant, up to date and secure?
- Who takes responsibility to ensure the above three are met? This is to say that skilled information management personnel should be in place to carry out strategic management of business information.

Martin, (1997:118)), noted that in the world that is rapidly becoming a vast network market place, the ability to access, exploit, add value to and profit from information has become a core, perhaps the fundamental survival skill. At the corporate level, it is essential that an enterprise information assets, its strategy, people, systems, operations and technology are integrated in a coherent fashion. This will not happen without effective information management.

6.4 RECOMMENDATIONS FOR FUTURE RESEARCH

The concept of strategic information is fairly new to the corporate world in developing countries such as Botswana. The following topics are suggested for future research:-

- The status of information management in other sectors of the Botswana economy such as manufacturing, retailing and tourism.
- A comparative study on information management by the public sector, the parastatals and the private sector in Botswana.
- Impact of technology in information management in developing countries.
- How enterprises in developing countries can improve their information management understanding and capabilities.



APPENDIX A

QUESTIONS FOR STRUCTURED INTERVIEW

What do you understand by information management?

Does your enterprise regard information as an economic resource?

Are you identifying the information needs of stakeholders (staff partners etc.) in project work and ensuring that information is collected and distributed accordingly.

Does the enterprise have an information policy?

Are you linking your information planning to the wider strategic planning of your enterprise.

To what extent does the enterprise use information technology for managing information?

How do you see information management contributing in positioning your business for sustainable competitive advantage?

Does your enterprise spend time on scanning changes and trends in the external environment.

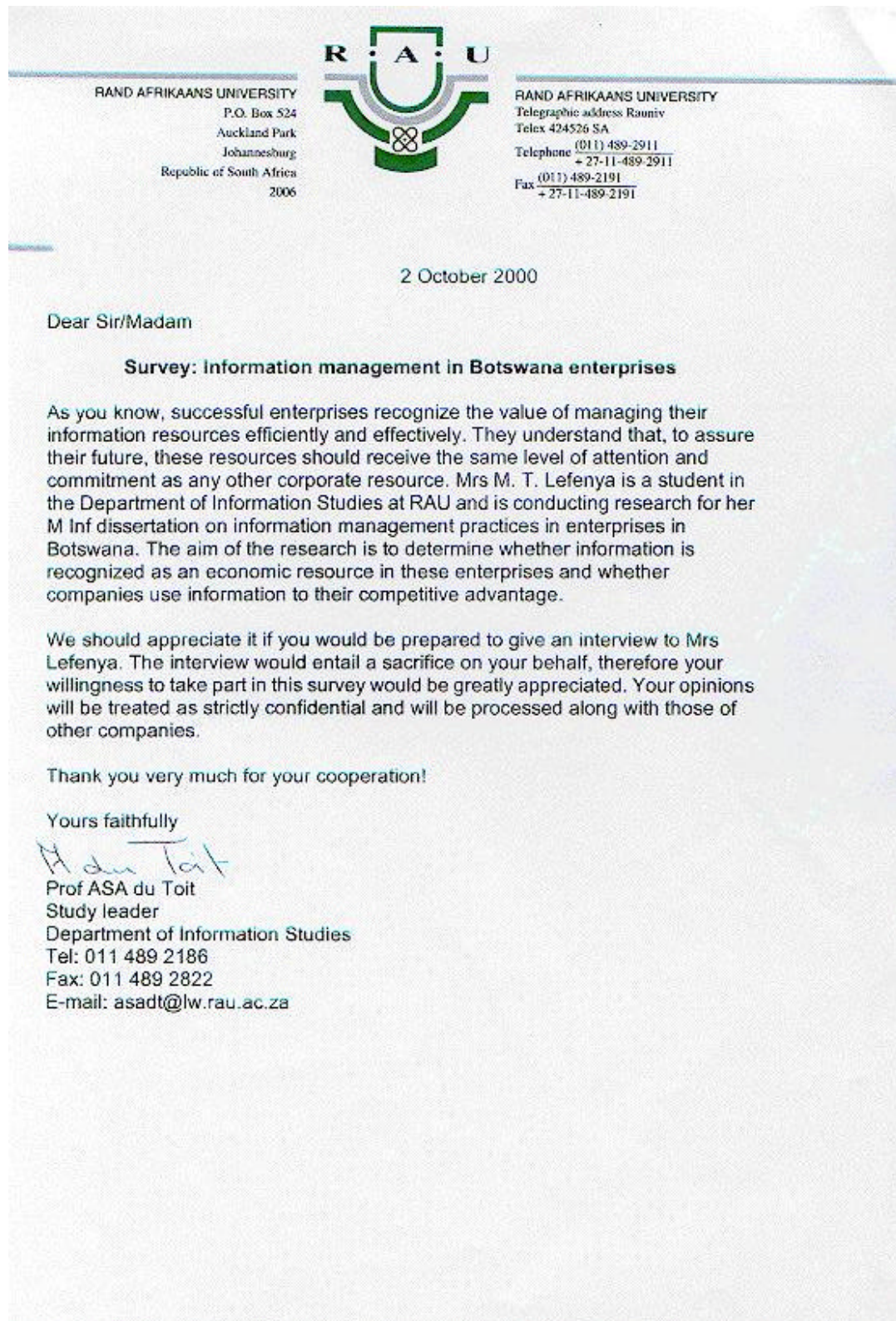
Which of the following information sources are formally organised and managed in your enterprise.

- a) management information (e.g. financial and administrative data)
- b) Internal documentation (e.g. correspondence, minutes)
- c) Competitor information
- d) External information (periodicals, research reports, newspapers)

Do you have a formal information management department in your enterprise?

What type of information does your enterprise regard as critical business information for attaining strategic goals?

APPENDIX B



APPENDIX C

DATA PRESENTATION FOR CHAPTER 5

The data presented below consists of selected verbatim quotations of respondents as recorded during the interviews. The paragraph numbering corresponds with headings of paragraphs in chapter 5 to facilitate easy cross-referencing. In order to maintain the anonymity of respondents, they are identified using numbers with the letter “R” for respondent, e.g. respondent 1= R1, and so forth. Where the name of any institution was mentioned during the interview, the researcher preferred to refer to them as X, Y or Z.

UNDERSTANDING INFORMATION MANAGEMENT

R1 The way I understand Information Management is the way we collect, compile, communicate and disseminate information to our staff and our customers.

R2 Well.....my perception of information management is about basically how we use information, manage that information for the use of the company. That in a nutshell sums up what information management is all about.

R3 I think eh! as I understand it as a layman, information management refers to a system where you keep your information in an efficient manner so that you can pass it on to the next person with the least hassle. In that way then information management becomes very crucial especially in a world where there is a lot of communication coming across. You need to put your information in an organised manner in order to make informed decisions about it and disseminate it to others.

R4 Information Management is the use of information, collating of information to make management decisions. The use of information as a management tool for decision making, for strategic planning, for risk management and in order to enable the leadership of an organisation to draw information from the activities of an organisation to get feedback on the premise of the organisation patterns, economic cycles that can be used for focusing into the future.

R5 Information management would be the management of the information that the company has at its disposal and being able to use that information to make the company more efficient and more productive.

R6 I think information management is basically managing information and normally you manage information that you have but I guess the starting point is collecting information. After collecting the information, it will have a number of stakeholders or a number of users in the organisation, depending of course on the analysis and interpretation of what matters to you.

R7 What our company understands by information management is to organise information in such a way that we are able to use it to our benefit. The way we will organise our information is different from the way somebody else would organise their information. Our information, we will organise it in a way that it will make sense to us.

R8 Well...in a simple language term, I would say I understand it as making use or utilizing all information at your disposal, taking in consideration all the information that you need to make informed decisions.

R9 Our products are based on information so the better we manage information the better we perform as an organisation. I understand information management in relation to its importance to our survival.

R10 I suppose first of all you might have to define what management is and to my understanding, management is the coordination of the resources that you have in order to achieve whatever you want to achieve. So I suppose information management is the coordination of information or data that you collect about your business about your competitors so that you strategically use it to put yourself in a competitive situation.

INFORMATION AS AN ECONOMIC RESOURCE

Responses of the respondents with regard to whether their enterprise consider information as an economic resource.

The ten respondents responded as follows:

R1 Very much so. As a bank we believe or rather not only as a bank, if you do not communicate or if you don't collect information about what other people are doing with information elsewhere, it can not be an economic resource.

R2 Yes it does, because there is an old saying that goes knowledge is power. If you do not know the environment in which you operate or live in, or essential factors about that, you don't know what drives it, what direction it is going then you know your are lost. So as an economic resource, it provides that basis on which you propel your direction in a competitive environment. Yes, our enterprise regard it as an economic resource and it should be managed depending on the context. You see I am talking generalities and as I say information is about knowledge, is power depending on the context in which you are operating, what you are, what you are doing. We are always using information to put us ahead, for directing our operations and so forth. Looking at it from the perspective that it is an economic resource, for economic growth, for prosperity of the company, for making profit, it becomes a very vital tool.

R3 Information is a very, very important economic resource, though intangible as it may be. It is an important resource because all corporate decisions that make sense must be made on correct and reliable information. You know, you cannot make correct decisions unless you have accurate and up-to-date information.

R4 Yes, actually it is as important as all the other resources that the organisation depend on but I think information is a more important resource. It is a critical resource as you know in banking our key asset is information. One of the areas where we use information is portfolio. We look at what risks are associated with portfolio. We look at such issues as sectoral investment, we look at such issues as interest rate etc. We get information on good customers and bad customers, we look at arrears and output of staff. We get information on the cost of funding, utilisation of resources internally, what efficiency levels are, internal assets, internal equity etc. So it is quite a key resource especially in planning and moving forward.

R5 Absolutely, it is of critical importance to us, without it we would be out of business.

R6 Sure, I have already sought of alluded to that. It is indeed, without information there is no business and without information you cannot meet the expectations of the customers because what

normally happens is that you should design products which are required by the market otherwise you will design products that are not necessarily acceptable to the customers.

R7 I would say not only as an economic resource, but as our lifeline. We place a lot of importance on information. When we talk about information, we do not only refer to printed information, even oral information is crucial. For instance, if someone comes in here and leaves a message, it got to be passed through the channels that the message should have passed. Because it is our lifeline if information is short circulated somewhere or if someone does not get information where it should be, then we have a problem. As a company, we could go down if information is not used properly.

R8 I would say for sure it does because to us with our clients the way we do business, we need a lot of information at all times. Clients always want to know what sort of information is developed on the policies, what is the latest available values on the policies and things like that. Without information, I think we would probably be dead, just like fish on dry land.

R9 Actually, it is as important as all the other resources that the organisation depend on but I think information is a more important resource.

R10 Obviously it is critical. I think in the modern days, you cannot do much without information. You need to know about things that you may think would not affect your business. It is one resource that you would rate with things like computers and it is one resource that you cannot do without.

IDENTIFYING INFORMATION NEEDS OF STAKEHOLDERS

This question was meant to establish if the enterprise ever bothers to assess the information needs of its stakeholders and following are the response.

R1 I will break this down into two. There is a way in which we communicate with staff. There are communications for staff and those for customers. With staff, the way we communicate or the way information is disseminated is by way of committees.

Minutes of the committee meetings are disseminated to staff. Proceedings of these meetings are send to the executive director so that he can be aware of what is happening in the business department. We also have what we call Heads of Departments (HODS') walkabouts, where that head of department

would visit one of the branches to solicit staff concerns and express his. The staff would communicate the customer complaints and compliments.

We also have MD walkabout whereby the managing director visits all the branches at least once a year. Or if there is something important he calls the staff for a meeting. We have a rest room at the back, where we gather for his address.

We have the HR walkabouts on monthly basis. I visit all the branches. I go there for individual meetings and general meetings. At times it is staff that calls me to come and address them on human resources issues or general issues concerning their welfare. If it is something I don't have much information about, I drag with me the relevant officer when I visit the branches, so they can go and address the issue.

We have manager's workshops twice a year. Every year we have all the managers in the bank addressed by the MD and also the director whom the MD reports to comes here from South Africa and we have the opportunity to take up issues that we are not happy about from the head office and he can in turn address issues that displeases him about our bank.

We also have other forums like the HR forum, whereby I go to Johannesburg where all The bank HR managers meet. So we take all the issues to these workshops and bring back feed back. We write reports informing staff about what transpired at these meetings.

We have gotten into a new campaign called simpler, better, faster. You must have seen it on T.V. We are now saying we want to make banking simpler, better and faster. What we have done is we have bunched something called staff suggestion campaign. All of us staff have run workshops. We were away running workshops for staff and saying how can we make banking simpler, better, faster. We have chosen a representative who is responsible for this campaign. Now staff have send in their suggestions to this person. We are going to look at these, assess them and staff will win prizes. It is a huge thing as it is the first time that staff is involved to this extend. This has been on the staff side.

On the customer side, our branch manager and our relationship manager have a task to visit our customers on a quarterly basis. They would physically go to a company and to visit the Chief Executive to find out how they are doing. They all have to do that.

We also write personal letters if something new is about to happen. We also have statement messages. At the bottom of the statement there could be a message that could be announcing a change or soliciting suggestions. We also issue out leaflets. We have newspaper clippings that we send to the media if we want to communicate. We are not a bank that believes very much in media though. We believe in going to the customer. Other commercial banks spend a lot of money advertising and we don't. After all our customers are corporate so we do not have a problem. We have get together with our customers, for instance, we may organise rugby on a big screen where the customers go and we talk with them. We invite them to all the board lunches.

In the case of all the fancy fund raising activities, we buy tickets for our customers because that gives us the opportunity to interact with them. We are also involving our customers in the simpler, better, faster campaign. We are going to give them forms that they can fill in and send back to us. This is how I would answer this second question, that yes we do consult.

R2 Precisely, you know, if you are in a service industry, you must know what your customers want, what your clients want and so information becomes very vital as of their particular interests, their needs and so forth. So in this context, information is used and distributed accordingly to enhance our service delivery and operations. We have one of the general principles of knowing our customers and that is precisely identifying information needs of our stakeholders.

In case of our staff one needs to know, gather information in terms of their abilities sometimes. Knowing who are the most productive and so on. You gather information in that context and where they are weak you organise courses for them and this will all have to do with information.

R3 Yes, we always try to, endeavour to establish what their information needs are, because I think it is through understanding their information needs that we can keep a positive relationship. Yes, we do strive to get information about stakeholders. We do conduct periodic public surveys to get to know how people view us as a corporation.

R4 Yes we do, for instance, if I give examples of two projects, one was the Y2K project, the central issue relating to that was protecting our information systems and protecting the information we have. For instance, if a client comes in and wants to know what the balance is and we do not know it, its gonna be a problem. So obviously when we put together information, we try to look at what is

important for the client. What our staff need to know is what arrears for staff per loan account are, so that they can follow up and collect those arrears. Management need information in terms of profit levels, efficiency rate and things like that. So we look at the various stakeholders and obviously we provide them information. The key area, we look at our shareholder, what information we give our shareholders and this information comes in the form of annual reports.

R5 It is one of our new priorities. It has been identified as mission critical to our success and we have various projects on the go to utilise our information more effectively to the benefit of our staff, policyholders and our shareholders. We are trying to find out what their information needs are by manning databases constantly.

R6 Yes, that's the crux of the matter. We have to collect information for decision-making process. You have to collect that information to design products that will satisfy the customer.

R7 First we need to know our interaction with that person, be it staff, director, partner, whatever. Our interaction is defined. Our clientele also their needs are defined in the sense that if a client walks in and say I want this service, right from day one we start keeping records and track of what service he wants. In dealing with clients we identify what other service we can provide so then we follow you up. We always want to make sure that you understand what you buy because if you don't understand we are going to pick up problems along the way.

R8 We keep our staff informed. At our company we have quite a unique way of communicating with staff, in the sense that we have the Internet and on that we have the local web page where you can access any type of information about any matter concerning your employment, news link and whatever is happening. Everyone of our staff is connected to a P.C. They also have access to receiving and sending information.

In respect of our clients, we are trying to update our brokers and we inspire them to buy computers so that they can be connected to the Internet and hence receive all the information they need from us through this facility. It makes it sought of easier. We are aspiring to become a paperless company. We are trying to go the technology way.

R9 Yes, actually we are setting up an information system and in order to get it right, we have to gather information from staff and also look at what products we are going to put in the market.

R10 We do collect information about the market and our competitors. The way we structure it is such that each department would find information from outside more essential than others. For instance, in our underwriting department, if we give customers rates which they may find high, this will make us lose business. So it is important to let customers know what is happening in our business.

EXISTENCE OF A FORMAL INFORMATION POLICY

R1 No! We don't have a formal information policy. We do have all these many things. But we now know that we have to structure it. Actually we have manager's workshop this week and this is one of the topics. To draw an information policy and to get it formalised and next time you come here it will be in place.

R2 Yes, there is that regimented approach. HR specifically deals with certain issues, you know, regarding information resources and IT information approach to things. So there is that demarcation as to how information is used, who does it and how they must go about it.

R3 Well, I am not aware of any. But if there is one it will be different policies appearing in fragmented forms.

R4 Yes and no. We are right in the middle of developing that policy. We have to some extent a policy, in the sense that there are guidelines that relates to who gets what information, why and when. They relate to access to information on the computers. There are certain people who have limited access to information in their own area. Also we have a communication strategy with our staff in terms of what information we disseminate. For instance, after board meetings what information we disseminate to staff and how. Staff through heads of departments may give us response on the decisions that were taken by the board. So we do have to a certain extent an information policy and we are looking at widening it to decide how we best liaise with the media and public in general.

R5 Yes we do. Every member of the staff signs a disclaimer form upon joining the company which outlines what they may and may not do with electronic information for example. That is very strictly

adhered to. And then policy documents that contain vital information about our clients are very strictly regulated.

R6 Yes there is a defined information policy. There is a guideline as to how information is collected and how after the information is collected we store it. It also says who should use what type of information and how information is distributed.

R7 Eh...I will say yes and no. Yes in the sense that we have a policy and people know how information should flow but it is not committed to paper. It is part of our practical work procedure. So we don't have a written policy but when anybody is engaged or shifted to a new division within the company, they are made to know that this is how the information should flow. That is why I say yes and no.

R8 I do not know of it of hand. I'm sure there must be something in place somewhere. I think it is obvious in the sense that at certain levels you should only have access to certain types of information. I'm sure there must be guidelines. I have not seen any document in the name of information policy but I might only be lazy to look. I don't think it bothers me. It is not part of my daily act.

R9 That we actually haven't developed, because I have just joined. There is no formal document in the nature of an information policy and I think it should be developed.

R10 The accessibility or limitation of information will largely depend on your responsibility. We do not have a policy in place.

LINKING INFORMATION PLANNING TO BUSINESS STRATEGY

Responses to whether the enterprise links information planning to the wider strategic planning of the enterprise. The responses were:-

R1 By all means. This year we have gone into something called the balance scorecard. The balance scorecard states that traditionally organisations looked at their progress in terms of the profits they have made, which is true. Organisations don't look at what customers say, what customers feel. They don't also look at processes. So that in our new strategy we are going to use the balance score card in everything we do. That everything that you do you have to ask yourself how it impacts on the

finances, on customers, on staff and on training and on system. That is how we now think. So we have taken all that information and merged it such the way you talk to people, disseminate, compile and communicate must all relate to the balance scorecard and the budget. When you make a budget and you ask for P10,000 you must ask yourself how it will impact on this and that. We always link it.

R2 Yes, I have already mentioned that we do link information to the wider company strategy. It is information that determines the direction the business has to take.

R3 Yes. We feel that information is very important for planning all your activities if you want to survive the competition. Our company then links information planning to the business strategy.

R4 Yes, strategy without any information is like probing in the dark. Obviously information looks backwards. You can use that to extrapolate your memory.

R5 Most definitely. In our kind of business, we have to use information to plan for our marketing strategies in the future.

R6 Yes, our IT department which is mainly responsible for managing the information is support service to the user departments. So that being the case the broader business strategy then is supported by information systems strategy. So what we have is the business strategy we then deduce the information systems strategy. It would be the inverse if we were an IT company.

R7 I wonder how people would plan without information. We definitely need information to plan.

R8 Information is very good for planning. In fact, it is on information that we base our planning.

R9 Yes, we are because we would like to get the right information in place for putting mechanisms of making sure that our strategy in terms of how we are going to market ourselves is actually supported by getting appropriate information.

R10 In our service industry, we rely on information. For example, if a client comes in we need to get certain information about them because we go on risk. So, that information will largely depend on the source. If we get the correct information obviously we will give the right rate. If say potential client is accident prone, we have to give them the appropriate rate. Correct information is very important.

INFORMATION TECHNOLOGY

R1 Our IT as a small bank is not a very big thing. All we have is our internal e-mail. Internally, I mean we communicate here as a bank and the bank X group. Our bank has not been able to communicate externally because they say they are still trying to build the firewalls. The fraud in computers is so much and we as a bank is still very backward. We may say we are almost five years behind the other commercials here. We are not using the IT to the extend that we believe we should be using it and it is also one of the topics at the coming workshop.

Since we do not serve the masses we feel we do not need much technology because our customers are corporate, they come here, they drop something, you reply to them and that's it. We are moving at a slower pace than other banks. However, we have a website which is centralised. That is if you need it you have to take a journey to the IT room.

R2 It is done. You know, this is like eh! a kind of basis for managing information.

R3 As I have already indicated to you as a service orientated company, the speed with which we are able to communicate and process project applications, you know becomes our survival. Recently the corporation has spent a lot of money trying to raise technology processes. So we take information technology seriously because it will tend to speed up our processes.

R4 To some extend. Obviously if you look at our customer balances etc. We have a system we call bank master, that provides us a lot of information that we need. Information such as customer accounts balances, arrears etc. From an accounting point of view, we have a package called ACPAC for accounts processing. We have on top of that what we call an information management system the extrapolates information out of the various areas. It takes it out and analysis it and sends it back to what we call a portfolio management report, produces quarterly and monthly management account etc.

R5 To a huge extend. As you can see, there is a PC on every desk. These PC's are linked to our mainframe policy management system. So everyone is expected to be PC literate. We do not have a website. The argument is that a large portion of our clients is not connected to the Internet.

R6 I mean you can't run any business without information and information for us is very critical for decision making otherwise the decision would be based on gut feeling which is not supposed to be the case and we use IT to a large extent to manage this information. In fact as already mentioned, the information is managed by the IT department.

R7 Well, you can see that we are fully computerised within the African context. Actually I have few friends overseas who I correspond with time and again because I am involved with some outside organisations. We tend to think that they are more automated than we are but that is not true. I think I am more automated than a couple of chaps that I know overseas. So when I say within African context, I mean we are really computerised. I tell you, if our computers should go offline for a month, we would be out of business because we won't be able to do anything. Everything is on the computer. Every office has a computer.

R8 I think I have already touched on that one. I have just said that we aim at becoming a paperless company.

R9 I think we are actually dependant on technology. There is no way we can say we will get into the market without the use of technology.

R10 We do use IT. The unfortunate part of it is that our system is centralised and we are linked via Botswana telecommunications corporation to South Africa and there are many other companies that are connected the same way. During busy times access is not very easy and it can be very frustrating. The problem is with infrastructure but otherwise we have chosen to use IT to manage our information.

INFORMATION MANAGEMENT AND COMPETITIVE ADVANTAGE

R1 We don't have it, we are dead and this is why we spent P80,000 in a survey last year and we are spending it again next year. We have engaged a consultant do a survey for us every two years and we have already budgeted for it. They will be coming every two years to assess, especially that when they came last year we were changing the banking system and adopting a system that is quicker and produces more reports than the old one. During the survey, customers pointed out some things that would make us properly positioned. Some of these we have been able to do others not, so we asked

her to come here again next year and find out from the customers what other things they would like to have done.

R2 Yes it is. We use other words or phrases to describe this intelligence gathering, industrial espionage and so it becomes a vital thing in business you know, a real sharp edge business where there is a question of who has the latest information about something. Finding out about what your competitors are doing where they are, do they know what you think you know. Globally, I think this is an aspect that is being used. I think though in the parts of the world where business is still evolving (third world) this has not been taken seriously. And I think the context of environment here again is something that is beginning to sink.

R3 Yes you need to study your competitors, you need to get information that says something about your competitors. You need to study the trends in the market place about where everyone is going so that you can be an active player in any particular sector that you are involved in. So I think it is very crucial just like we have been saying to scan through periodicals and magazines to know what is happening in the market place so that you align in the same direction with your competitors or even become leaders. But to assume that position one needs to have information about what is happening around you.

R4 The whole point of information is to analyse it and it is in the analysis that we can come up with results that either tell you what your weaknesses are or information that you can use to gain competitive advantage. One of the other things is that we still do not have a research capability internally but it is one of the areas that we are looking at. We want to come up with a research capability that will allow us to obtain information in the light of this and utilise that information.

R5 Well, without information management we would lose. We would be out of business. It is very critical to us.

R6 I have already touched on that. Without information you cannot survive the competition. We do have a lot of competitors in the like of commercial banks and they have an advantage over us because they have branches all over the world. Their mother companies possibly out of the country and they do have access to certain information that we otherwise would not have. So really our information, the information that we collect is localised which does help us to a certain extent but we would do better if

we had access to external information. What these other banks do is they look at what they are doing outside the country and compare with what the requirements would be inside the country and come up with better products.

R7 As I said one of our principles here is that information is all. We even collect information on our rivals. Yes we may not have immediate use of it but we still file it. So for us to get competitive advantage, we need to collect information and to analyse it. You know, we collect everything.

R8 My vision for this company is that we have an office here and we have an office in Francistown and from there we would have pilot offices. The only thing we need to do is to take a computer like this, place it at a given place and from that source you can process business and you can get information. It will be like a one stop shop when we will have that kind of system. I see the current system that we have as an extremely positive technology in the sense that it would give us an edge.

R9 If we don't manage our information, there is no way that we are actually going to succeed in the market. It has actually become very hot. We used to have a comfort zone in that we were the only people who were like trading through the post office but now it has been opened to other players like Botswana Building Society. They are also looking at trading through the post office and they have introduced similar products. Apart from their business and so on, they now have savings accounts and save as you earn. They are calling them different but they are similar products.

R10 It does. It really keeps us in a position where we can stay ahead.

ENVIRONMENTAL SCANNING

Responses as to whether the enterprise spend time scanning the changes and trends in the external environment were as follows:-

R1 Yes, last year we as a result of that survey, introduced the new unit called business support and someone is sitting there as in business support officer who is collecting data and every Thursday at our management meetings we are given feedback. Everything that is picked, be it in the banking market, in the Botswana economic market and any changes in South Africa, in the world, anywhere we get feedback every Thursday. This person must have a business degree, and should have worked at least

five years in the corporate world. The person reports directly to the executive committee. He is the head of all our business units.

This person was appointed in September last year. Before then it was wishy-washy. There was no one who was educated to do it. And obviously it wasn't done properly. I remember one customer had said, all these people in this street do not hold accounts with you. They bank with either Bank Y or Bank Z and yet you are so close to them and you are a corporate bank and you don't know where they bank, which was very true. There was nobody in the bank to just go out to these potential customers to find out who they bank with and what is their reason for banking there. We discovered that if you don't manage your information and if you don't know what is happening out and around you, you'll be left behind.

R2 That is very important especially in the banking where we are dealing with security, we are banking other people's money and we don't want to part with a dime so we need to know what is happening, how it is happening, what may happen and so on. So yes that is very important to the environment.

R3 Ya, I think we have a responsibility as a public relations division to know what's going on in the market place. We do that on a regular basis, in fact on a weekly basis. We even have clipping files, we have some press cuttings especially on issues that directly affect the corporation.

R4 No we don't but that is a critical part. That is why we are now looking at a research department. If not, we are looking at the other areas, that is to outsource. There are organisations such as BIDPA that can provide one with continuous information. So, I mean, it is a critical area, in fact, it is key to our survival. If you don't have it you don't have information.

R5 Most definitely. We do that. I personally do that on daily basis. I use different media, newspapers, radio, Internet, scanning my competitor's websites. There is no policy regulating this but managers are encouraged to stay abreast of changes and trends.

R6 Yes and we do it on a regular basis, regular meaning we do analysis our information on a monthly basis and we do sought of compare month by month to determine if there is any defined trend.

R7 We are always on the look out for any changes in the environment. Anything around, that could affect our business positively or negatively is noted.

R8 I think our company, globally, yes they do that all the time. We also do that and that is also the duty of the HR manager to do it. So we are constantly looking at the newspapers to try and find out what's going on. We look at such things as the effect of AIDS, the effect of the economy and the effects of the micro loaners etc. We are all fighting for disposable cash. We are also trying to talk to the right people to find out what's going on.

R9 We have specific resource we call manager corporate development. He is an economist. He looks at what is happening outside in the market. He gives us that kind of information on what is happening in the market. This is how we position ourselves and make sure that we are not left behind.

R10 We do note what is happening around us because we have to take into account things like inflation to incorporate them in our planning. If we don't take into consideration things like inflation and general trend, behaviour of the consumers, of the market we will be left behind and it is detrimental to the business. We have to adapt and if we don't have information we cannot do so we review it continuously, I would say annually, at times as need arises. You might have to make a general review of the portfolio that you have, based on the market and at times based on the individual.

MANAGING INFORMATION RESOURCES

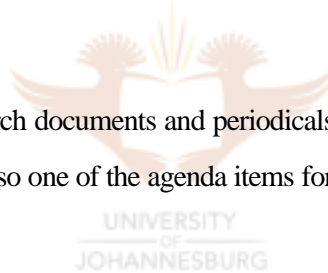
Responses as to whether the enterprise formally organised and managed various information resources were as follows:-

R1 Financial information is so structured you could cry. It is quite a process when you want it because we keep it at the volts. The thing about the volts is that you go in the mornings only from 0800hrs to 0900hrs. From there they are closed because of the time delay lock. So if you cannot get the file you want during that hour you are dead. You just have to wait until the following day.

The same goes for internal documentation. Correspondence and minutes are filed and as I said the minutes for all the meetings are filed centrally. They are sent to the business and support officer so that they may know what we discuss at our departments and the impact it can on business.

Competitor information is now properly done for the first time. This is managed by the business and support officer.

Even the external information, research documents and periodicals are kept by her. But we are going to expand this unit by next year. It is also one of the agenda items for the next meeting, to set up a business unit.



R2 All are well structured and formalised including that on competitor information.

R3 Very much so, because as an institution we need to keep proper records for our finances.

That is also properly kept. We do have files. Such information is also kept in electronic form. Of course external correspondence also comes in the form of electronic information. We do have a good records management department that takes good care of these.

Competitor information ----eh--- we are not yet in the forefront of this but as I have indicated, we do keep an eye on market trends and what competitors do. Essentially this is one of the reasons we restructured in 1998 to try and upgrade our processes so that we can compete effectively in the business market.

Yes, we do have a library where we keep our periodicals, newspapers, research papers and books in an organised manner. But currently we are trying to transform it into an electronically based library because we are realizing that libraries are getting smaller and smaller over time.

R4 That is all in place. Competitor information we get in terms of Bank of Botswana Reviews. We get monthly statistics from Bank of Botswana on the size of each bank, the amount of tariffs given out by each bank etc. So we know who is doing what. We also do surveys. Right now we have commissioned the market study to look at what products are offered in the market, what the pricing of those products are, the targets for which those products are and so on.

External information- I keep it on myself. A lot of it is useless information. You get staffed with a lot of data that is useless.

R5 Management information is formally organised

Internal documentation is formally organised

Competitors information is not formally organised but informally. We keep abreast of what is happening. We are very aggressive but it is not formalised.

External information is partially organised. It needs to be tightened up. We are in the business process of forming a corporate library that all members of staff will have access to. I have donated several books to the library on communication, business and marketing strategy. It is a very small resource at the moment but I expect it to grow.

R6 Management information is organised

Also formally organised

Competitor information----yes, we do have competitor information but it is not formally organised

We do have periodicals kept in a small library. It falls under the administration department and they manage it.

Management of financial and administrative information is obviously formally organised.

Correspondence is fully filed

Competitor information is well organised and kept with the senior director. Usually after it has been used we get rid of it. We always want to know what others are doing. We don't have a file on this one and we wouldn't do that. It is mostly oral and if it is written we discard it as soon as we are done with it.

We do keep periodicals and we get periodicals from the U.K. It is not local information but the information is still there. We do subscribe to these periodicals. We do subscribe and keep local newspapers in the office of one of the directors.

R8a. I'm not sure about this one. We're also trying to look at what our competitors are doing. We try to get as much information as we can but we don't have a formally organised documents on this. We do have a competitive intelligence company in South Africa and actually it is my supporter. I'm relying on them to give me information. We have one person sitting there and he is called a marketing support officer. They try and scan what is happening around. In fact, we believe that what is happening in South Africa is not uncommon here. All my staff have worked for one of my competitors before and they can always tell us what our competitors do and how they do things.

R9 Competitor information is specifically managed by the corporate development manager and he regularly updates management about what our competitors are doing.

What happens is that they come through our administration and our administration circulates periodicals and they are sent back to the administration. They have a filing system as a way of keeping them.

R10 Management and financial information is formally organised. It is up to the manager concerned to make sure that it is well organised.

Competitor information is not formally organised but it is somewhere and we can always get it somehow

The external information is kept by the Secretary

EXISTENCE OF A FORMAL INFORMATION MANAGEMENT UNIT

To establish if enterprise have a formal information unit and the ten respondents gave the following responses:-

R1 No, but we are looking into it. Presently it is a one-man band. We would like to expand because as it is, we also do not have a marketing function in our bank. We want this person to work with other people. This person is not at a managerial level and so we need someone to come and manage it. If I remember well, I have been authorised to recruit a graduate in either economics or accounting who we can groom. Because those people are fresh from school, they have been studying research and such. Instead of getting ready-made people, we will recruit fresh graduates and grow them into the job.

R2 Yes, that is why they referred you to me, I deal with that, it falls under what is called external affairs. Deals basically with our relationship with government regulatories, it deals with media, donations, sponsorship, personal relations with community, internal communications and external communications as well. In fact, we are still setting it up and I have come specifically to deal with this, so we are slowly building it up but who would fall in that category would be people who have specialised in dealing with information, disseminating and also speaking it out, that is people trained in information work.

This is a support function of the bank where we try to use information in selling ourselves and making things plain and clear. People coming in that function need a background of dealing with information.

R3 Well, since the image of the corporation is protected by the public relations officer, it is this office that is responsible for collecting information about what is happening around us. We do not have anyone trained in information management skills in the corporation.

R4 We don't have that.

R5 Well, we have a business department which is our IT department. Some of our IT staff are very skilled in doing audit trails and they have a lot of other information handling skills. They are not just a bunch of technicians. They are very much involved in the process in business.

R6 We do not have one.

R7 We don't have it. We are too small to have one. The director's office is in charge of keeping newspapers.

R8 We only have it in South Africa and not in Botswana. We only started a couple of years ago and we are still in infancy.

R9 I would say we do not have a centralised information service. We are a small organisation in terms of the number of people employed here with a staff of 75. So you will find that we are still developing.

R10 We do not have one. I suppose the reason is that the company is too small to accommodate that.

CRITICAL BUSINESS INFORMATION

Comments on what type of information is regarded as critical business information for attaining strategic goals. The ten respondents responded as follows:-

R1 Anything that is business oriented. Anything that tells us what the market trends are, what our competitors are doing especially in terms of the products and the people, because without the people's skills you can forget it. It is all about information, technology and the people. Anything that tells us the new trends in the market and human resources management.

R2 To know what other people do in terms of banking business. What it is that we are about, what is our goal as the bank. All information relating to the functions in the bank. Information regarding the economy and what our competitors are doing is critical. Information that will help us attain our goals.

R3 I think really critical information is information about equity so that internal employees can understand our business better and of course information about competitors. Critical information that we take seriously is that on project evaluation.

R4 Customer and market information is critical to us. Who our customers are and their requirements and how we can meet them.

R5 Obviously sales information, which one of our branches is doing according to their targets. Then internally with operation divisions is productivity information. How productive our various divisions are.

How productive members of staff are and then in the financial area, financial information is critical to report back on the success of sales operational divisions.

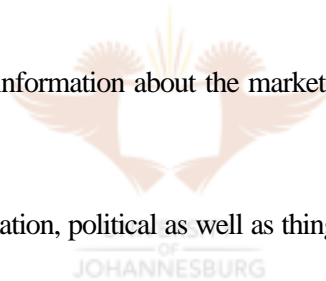
R6 First of all we have to look at the customer information which is very critical. Then we have to look at the economic environment and how the economy is doing. We also look at information pertaining to the Southern African region. Basically the critical areas are the customer information, the economic information and competitor information.

R7 Information about our potential clients. We even follow them from birth. For us it is not about old business it is new business. If you don't know your potential market, you won't bring in new business, you won't grow. So information about the potential market is very critical.

R8 I think information about the market is very important. Information about the economy and the competitor is also essential. If you have information about your competitor, you will be able to price competitively.

R9 Critical information to us is information about the market and competitors. To know what our competitors are offering.

R10 Economic, competitor information, political as well as things like the weather patterns.



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