

UNIVERSITY OF KWAZULU-NATAL

DEVELOPING A MODEL FOR A CORPORATE RECORDS MANAGEMENT SYSTEM  
WITH SPECIAL REFERENCE TO SUSTAINABILITY REPORTING IN IRINGA  
REGION, TANZANIA.

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REGION, TANZANIA.

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Submitted: March 2005

## DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is a product of my own work and has not previously in its entirety, nor in part, been submitted at any university for a degree.

.....  
Bukaza Loth Chachage Mwani  
March 2005

## ABSTRACT

Companies are increasingly producing sustainability reports due to various corporate social responsibilities and sustainable development pressures. However, corporate records which are the sources of information for sustainability reporting are neglected. Therefore, in order to address corporate records, the purpose of this study was to develop a model for a corporate records management system with a special focus on sustainability reporting in Iringa region, Tanzania.

The empirical part of the study which established the existing situation of corporate records management systems in Iringa region is considered descriptive and the model development is considered an exploratory inquiry. The study used a population of nine cases of companies from Iringa region in Tanzania. The study used primary and secondary data. Primary data were collected using interviews and physical observations. The secondary data which established variables for data collection and attributes of the proposed model were collected using the literature review. The researcher administered an interview protocol to heads of the records management systems in the study cases. In the case of observation, the researcher used an observation schedule and recorded all the observable predefined themes. The study used both qualitative and quantitative data analysis methods. For the former the Statistical Package for the Social Sciences (SPSS) was utilized for the set of closed questions. For the data presentation graphs were drawn using Microsoft Excel software. The open ended questions in the interview and observation results were analysed using content analysis and they were textually presented.

The study established that most of the companies used an administrative officer with higher education to head records management systems. Most of the administrators had in-house or paraprofessional records management training. The study also indicated that in general, sustainability related records were kept by all companies except environmental records, which were not comprehensively kept; in particular environmental records with global impacts were not kept. The majority of companies in this study did not publish sustainability reports.



The study identified that only two companies were aware of the ISO 9000 (quality standards) and ISO 14001 (environmental management system); the majority of the companies were not aware of these standards.

Furthermore the study revealed that most of the companies had standardized forms and templates. Companies also registered newly received or created records. It was also established that all companies used computers. The major uses of the computer identified by the study were e-mail, word processing, spreadsheet and Internet. It was also revealed that the majority of the companies did not have websites. The majority of the companies printed e-mails to capture these records in the records keeping systems and companies did not add metadata to electronic records.

The study established that companies used a combination of centralized and decentralized records management approaches. Companies also used movement books to track records movements. For records storage, the study revealed that the majority of the companies used floppy diskettes and CDs to store electronic records and they also used wooden cabinets and steel cabinets to store paper based records. It was also revealed that companies experienced loss of electronic records due to computer failure. The study found that companies did not have vital records programmes and disaster management plans to address matters related to disasters and emergencies such as fire detectors, fire extinguishers, emergency telephone numbers and simulation of disasters.

The study discovered that companies' filing systems supported users effectively. The companies' dominant filing systems were functional and subject based. Companies used different filing systems in different departments. Furthermore, the study revealed that companies did not use finding aids and the retrieval of companies' recorded information took six to ten minutes per item, which was considered too long.

The study realized that records were transferred in boxes accompanied by documents that listed the boxes' holdings. However, companies did not have programmes for semi-active and inactive records even though companies closed files regularly. It was also revealed that companies did not make inventories of their records, did not appraise records, and did not have appraisal guidelines or retention schedules.

In the case of policy related issues, it was established that most of the companies did not have an integrated policy to guide records management activities. However, companies had uncoordinated specific policies in relation to records management systems. It was also revealed that the majority of the companies did not have written procedures for corporate records management systems. In the case of management related issues the study established that most of the companies did not have a records committee. However, companies indicated commitment for records management investment, although it was identified that there was no specific budget for records management purposes. The study also recognized an increased trend in spending on records related expenditures. The study revealed that electronic records management is the companies' future priority in records management related issues and it was also established that the top management of companies was supportive of the companies' records management improvements.

Finally, the study recommended that universities and recognized institutes be used for records management training; environment-related records with global impacts be comprehensively captured; awareness campaigns be conducted to sensitize companies to quality and environmental standards; standardized forms and templates be used by all companies; the proposed model be adopted to reduce volumes of printed electronic information; companies use their own websites and use of metadata to preserve the recordness of electronic records; file tracking systems be established; the extensive use of floppy diskettes be avoided; uninterruptible power supply or standby generators be used for computer safety; disaster management plans be established and simulated frequently; one filing system be used in the entire company; visible finding aids be established; retrieval time of recorded information be improved; semi-current and inactive records programmes be established; records transfer lists be retained in the offices after records transfers; a business archival association be established; inventories be made of records and a proposed hybrid system be adopted in the Corporate Records Management Systems model (COREMS); integrated policies be established in all the companies; records management committees be established; and strategies be established to utilize fully the top management support provided.

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## **DEDICATION**

I dedicate this work to my wife Kristeen Oberlander-Chachage.

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## LIST OF ABBREVIATIONS AND ACRONYMS

ANSI	American National Standards Institute
ASCII	American Standard Code for Information Interchange
BMC	Botswana Meat Commission
CAO	Chief Administrative Officer
CERES	Coalition for Environmentally Responsible Economies
CD ROM	Compact Disc Read Only Memory
CD-R	Compact Disc Rewritable
CD	Compact Disc
COREMS	Corporate Records Management System
CPA	Certified Public Accountant
CPO	Computer Print Out
CSR	Corporate Social Responsibility
DCI	Dublin Core Initiative
DMS	Document Management System
DVD	Digital Versatile Disc
EDMS	Electronic Data Management System
EMAS	Eco-Management and Audit Scheme
EPCRA	Emergency Planning and Community Right to Know Act
ESARBICA	East and Southern Africa Regional Branch of the International Council on Archives
ESAMI	Eastern and Southern Africa Management Institute
ESRF	Economic and Social Research Foundation
EEA	European Environmental Agency
EPR	Extended Producer Responsibility
EU	European Union
GDP	Gross Domestic Product
GIF	Graphical Interchange Format
GIS	Geographical Information Systems
GRI	Global Reporting Initiatives
HTML	Hyper Text Mark-up Language
ICA	International Council on Archives
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
ILO	International Labour Organization
IMF	International Monetary Fund
IPC	Investment Promotion Centre
ISO	International Standards Organization
IRMT	International Records Management Trust
IT	Information Technology
IUCN	World Conservation Union
JPEG	Joint Photographic Expert Group
KPMG	Klynveld Peat Marwick and Goerdeler
LAN	Local Area Network
LEAT	Lawyer's Environmental Action Team
MAN	Metropolitan Area Network

NCS	National Conservation Strategy
NCSSD	National Conservation Strategy for Sustainable Development
NEAP	National Environmental Action Plan
NEMC	National Environmental Management Council
NGO	Non Governmental Organizations
NSSF	National Social Security Fund
OSI	Open System Interconnection
PC	Personal Computer
PDF	Portable Document Format
PNG	Papua New Guinea
PIC	Prior Informed Consent
POPs	Persistent Organic Pollutants
RAS	Regional Administrative Secretary
RDF	Resource Description Framework
RMS	Records Management System
ROI	Return On Investment
RTL	Records Transfer List
RTO	Regional Trading Officer
SAP	Structural Adjustment Program
SFC	Structured Feedback Companies
SGML	Standard Generalized Mark-up Language
TANESCO	Tanzania Electrical Supply Company
TBL	Triple Bottom Line
TIF	Tag Image File
TIFF	Tag Image File Format
TQM	Total Quality Management
TRI	Toxics Release Inventory
SFIP	Sector Facility Indexing Project
SLADS	School of Library, Archives and Documentation Studies
SPM	Southern Paper Mills
SPSS	Statistical Package for the Social Sciences
UNCED	United Nations Conference for Environment and Development
UNEP	United Nations Environmental Programme
UPS	Uninterruptible Power Supply
VAT	Value Added Tax
WAN	Wide Area Network
WBCSD	World Business Council for Sustainable Development
WCC	World Council of Churches
WCED	World Commission on Environment and Development
WORM	Write Once and Read Many
WRI	World Resource Institute
WRI-WBCSD	World Resource Institute and World Business Council for Sustainable Development
WTO	World Trade Organization
XML	eXtensible Mark-up Language

## CHAPTER ONE

# Introduction and background to the problem

### 1.0 Introduction

The long-term survival and profitability of many companies in international business will largely depend on the sustainability reporting systems and proper records management in those companies. In testifying to the importance of sustainability reporting and the momentum gained by this new and rapidly growing field of information provision, Andrews (2002:3) argued that when companies were asked why they were doing sustainability reporting they simply answered "...sustainability reporting meets the needs and expectations of key stakeholders." This suggests the importance of information professionals in recording and reporting information to consumers who are increasingly demanding responsible products and services day after day.

Furthermore, for many years scholars and international organizations such as the World Bank and have been encouraging transparency and accountability in all aspects of corporate operations. For example, Betit (2002) noted that transparency (open, clear, on-the-table information and activities) and accountability (acceptance of responsibility) are the basic elements in the contextual practice of doing business today. Accountability and transparency issues are directly related to the record keeping and sustainability reporting systems of companies. The importance of record keeping systems and reporting information about sustainable development activities in companies also supports Parker's (2000) hypothesis that equates the value of information to the value of water in human lives.

There are many sources of information in the world. Records emanating from sustainability reporting are among the sources of information. However, in order to successfully exploit information in records, the records themselves should be managed and organized properly to facilitate their retrieval and use. The concern of this study, therefore, is to explore the management of corporate records in the Iringa region with a view of developing a model for a corporate records management system while focusing on the records emanating from sustainability reporting in the Iringa region, Tanzania.

In brief, this chapter presents the rationale of the study which is followed by the background to the study. In the background section, the chapter sets the stage for defining the research

major difference between the ISO 14001 and EMAS is the stringent reporting of recorded information to stakeholders in the EMAS (Brorson and Gösta 1999).

The increasing utilization of green purchasing and environmental marketing also fuels the demand for records management systems in business organizations, particularly companies. The main reason is the fact that one could not prove the quality or environmental friendliness of products or services without evidence. Mnjama (2000: 70) correctly put it this way:

...Customers are not just demanding that quality products be provided, but that evidence be available to show that companies are capable of producing quality products or providing quality service[s].

Sustainability reporting that is characterized by efficient records management systems is probably one of the most important aspects to be considered by all companies doing or planning to do international business all over the world and Tanzania in particular.

However, the fact that Tanzania National Archives mandate is limited to public records and a few private records with high value for society only (Mwango 2002) presents a challenge for information professionals to expand their understanding of private records emanating from the production of corporate sustainability reports. The understanding of the relationship between sustainability reporting systems and corporate records management systems would support the realization of sustainable development goals at company level in developing countries and particularly in the Iringa region, Tanzania.

Together with the contribution of new knowledge to the field of records management through linking sustainability reporting systems and normal corporate records management systems at company level, other companies countrywide could also adopt the model suggested in the study. As noted above, the outcome of the study will also contribute to existing knowledge in the field of records management at company level in developing countries. The final consumers of different companies' products or services, researchers, educational institutions and reviewers or writers of companies' histories could directly use the study results in their various activities.

## 1.2 Background to the problem

As noted in the rationale of the study section, sustainability reporting and corporate records management have become one of the requirements in implementing corporate environmental management systems and quality certification. Typical examples are the two environmental management systems the ISO 14001 and EMAS, which both require the creation and tracking of records, with additional strict record keeping and reporting of recorded information provided by the EMAS (Brorson and Gösta, 1999) and the ISO 9000 for quality certification which require evidence of the quality claimed of products and services (Mnjama 2000; Sebina 2001; Stephens 1996).

In the international environmental management systems (ISO 14001 and EMAS) and sustainability reporting initiatives such as Global Reporting Initiative (GRI) there is no mention on how to manage sustainability related records. This gap, therefore, underscores the fact that the development of environmental management systems and reporting criteria require the engagement of persons from different fields, including information professionals who play the crucial role of designing record systems for creating, maintaining and using, and tracking records in an effective and efficient manner.

There is a need for information in all stages of executing any activity (Alemna 1998:69). Therefore, the absence of corporate records management systems may lead to a failure in executing company sustainability policies and business growth due to the lack of access to sustainability evidence by the companies' stakeholders. The lack of access to sustainability recorded information may lead to rejection of companies' products or services by final c. support marketing of companies' green products and services, which is likely to give the company a competitive advantage in the market.

To emphasize Alemna's (1998) point Tricker (1998) cited in Mnjama (2000: 70) pointed out that:

Records are very important, not only from a historical point of view, but also as a means of settling disputes about bad workmanship, identifying faults and settling



production problems whether these may be internally by the supplier, or externally, by the customer.

The corporate records management system is important to control production, management and use of records. Rhoads (1989: 4) attempted to describe basic elements of a records management system (RMS) as:

.... Everything that happens to records throughout their "life cycle," that is, from their "birth," through their productive "life" as means of accomplishing the organization's functions, to their "death" or destruction when all useful purposes have been served, or their "reincarnation" as archives if they warrant permanent preservation.

The role of a RMS is to facilitate the management of the entire life of the records and allow access to timely information for informed decision-making. Probably many export businesses in Tanzania are underdeveloped partly due to the lack of a records management system that provides necessary information regarding environmental, social and economic issues to overseas customers at the right time to facilitate informed decisions. Underscoring the importance of records, Alemna (1998:69) argued that the "...very salvation of many African countries depends on policies and systems which can make information more easily available". Sturges and Neill (1990: 42) also pointed out the positive correlation between the availability and easy accessibility of information and general development. In this respect, therefore, this study argues that the way forward for African business development is the development of corporate records management systems that coordinate the records emanating from sustainability reporting.

Furthermore, in arguing for the importance of records management, the International Records Management Trust (nd) pointed out that efficient information and records management provides the basis for accountability, anti-corruption strategies and protection of right of entitlements. It was further noted that if the information sector is enhanced in companies the customers would be better served. Arguing along the same lines, Barata (1999) linked the deterioration of financial systems, accountability and corruption with poor records management. A well designed and managed minimize economic crimes by providing verifiable evidence of past transactions. The fact

that the integrated corporate records management system and sustainability reporting system would facilitate the smooth flow of information from the company to stakeholders, the possibility of openness, accountability, participation, and companies' good governance is enough evidence that with a corporate RMS, the customer base of the Tanzanian businesses would grow and hence increase the return on investment and the country's general economic development.

### 1.3 Advantages of records management

According to Parker (1999), records are evidence of daily activities and transactions. Records provide a trace of actions. Since proper records management is vital for openness, accountability and good governance, properly managed records are the most important recipe for corporate social responsibility (CSR) and long-term sustainability of businesses. Records are important due to the fact that they are probably the only trusted evidence of past actions. A properly managed record could be used in a court of law to prove sustainability activities or any other activities in the companies.

The major advantage of a record management system that caters for sustainability reports is that of the provision of a sustainable and economical flow of information from companies to customers and other stakeholders. In general, benefits of records management fall into four categories: fiscal value, legal value, administrative value and historical, community and archival value (Aldrich 2001). Additionally, proper records management through RMS could reduce misfiling and duplications, save time, save cost, provide complete information when needed and trace of past actions and provide a company knowledge reservoir and identity (Aldrich 2001; Mazikana 1990).

At the company level, properly managed sustainability recorded information could be used to teach, instruct and train stakeholders about the sustainable development actions taking place in the company (Kaye 1995). Recorded sustainability information can also be valuable in understanding the internal and external environment of the company. Corporate records can be used in sustainability innovation through past learning. Another area where corporate records can play an important role is in selling and marketing company products and services that require conformity with international standards such as the ISO 9000 and the ISO 14001. In this case sustainability related records could verify the quality of the products or services

through documented step by step production processes. Finally, sustainability information could be used to influence company sustainability progress. In this case companies would be pressurized to demonstrate continuous improvements in their sustainability reports, due to the fact that they cannot report the same thing yearly.

Generally, as noted above, records management is an essential tool for CSR, which in turn brings reputation to the company and corporate good governance. Records could also be used to verify facts, formulate policy, handle legal claims, project plans, implement and evaluate projects, litigate, administer, protect companies' interests, restore buildings and document departmental histories (Akotia 2000; Mazikana 1990). Additionally, a smooth flow of information through a records management system could help to expose or reduce mistrust among stakeholders and save stakeholders' time when discussing company sustainability issues.

To sum up the benefits and importance of records management systems at company level, one could argue that properly managed records are the foundation for corporate social responsibility that is characterized by openness, accountability, and stakeholders' dialogue and participation. In light of that, therefore, it is pertinent to assess the management of corporate records in the Iringa region and to develop a model corporate records management system, which focuses on the sustainability reports to support business and economic development in Tanzania.

#### **1.4 Consequences of poor records management**

In advising Tanzanians on the use of records and their management the first president of Tanzania the late Mwalimu Nyerere in Nyirenda (1993: 5) strongly stressed that:

Without a proper understanding of our past we are at the mercy of impulse and prejudice, lacking in balance and continuity: without contemporary records our history itself is a thing of gaps and myths conditioned by whims of writers who choose to illuminate this or that landmark but leave the intervening years in obscurity.

Therefore, in order to understand a company's past and acknowledge the existence of records in sustainability reports there is a need to have a corporate RMS. Without a RMS, records

would be managed poorly, which would cause serious damage for companies and stakeholders. As noted in the section on the benefits of RMSs, proper records management is essential for the openness and accountability, the management of resources, the protection of entitlements, decision-making and institutional memory.

The failure to manage records through a record management system could lead to a lack of evidence that a company performed a certain sustainable development activity. Without a records management system, there is a danger of losing a company's proof of identity, ownership, rights and obligations. There would be a lack of history of company sustainability events and an inability to locate and find information at the right time when stakeholders need the information. There is also the problem of losing individual, corporate and collective memory (McKemmish 1999).

In the many cases when records are not properly managed, the cost in terms of money, space and time is enormous. It is also difficult to use improperly managed records for planning and decision-making. Mazikana (1990) substantiated the consequences of poor records management by comprehensively reporting the problems that were encountered by different countries for not having proper records management systems. For instance, he pointed out that on Zanzibar Island, Tanzanian researchers were commissioned to study clove diseases and port rehabilitation when the research had already been done. One could argue that what happened in Zanzibar was due to a poor archive administration or the absence of a records management system, which involves reporting of recorded information to stakeholders in Zanzibar. Other poor records management problems reported by Mazikana (1990) occurred in Ireland, Jakarta, Indonesia, the Marshall Islands, the Far East, the Seremban highway in Malaysia and the Oder River Basin in Poland.

Another typical example to illustrate the adverse consequences of poor records management and the absence of a RMS, is the issue of the Kihansi hydroelectric power project in Tanzania in which billions of dollars were invested before it was realized that the area had a rare toad species that was not found anywhere else in the world. This discovery made it mandatory for the Tanzania Electrical Supply Company (TANESCO) to divert a certain amount of water necessary for the toads' survival. In diverting water, the plant will produce less power than was planned (Mwambande 2002). In this case, therefore, in order for companies in the Iringa region of Tanzania to grow efficiently with a reasonable customer base there is a need to

develop a company records management system to facilitate the sustainability reporting processes. The rationale for choosing the Iringa region to research is provided in the second chapter of this study.

### **1.5 Statement of the problem**

“To move towards sustainable development we must examine social, environmental and economic issues”, (Welford 2002:1). According to Savitz (2002), “companies without sustainability programs are flirting with disaster”. Savitz’s (2002) point of view seems to suggest that sustainable development-related activities such as corporate sustainability reporting should no longer be voluntary activities. There are many initiatives worldwide pushing for a corporate sustainability agenda. For example, it is common these days to hear of banks conducting investment social screening, asking for environmental impact assessment or strategic environmental assessment and requesting corporate social responsibility or sustainability reporting before committing resources to any investment (Wills 2003).

In addition, the demand for companies’ recorded information has an impetus from various institutions worldwide. Some of these institutions are: Dow Jones Sustainability Index<sup>1</sup>, which track the financial performance of sustainability driven companies; Jantzi Social Index<sup>2</sup> for environmental and social screening; Innovest Eco Value ’21<sup>3</sup> for environmental screening; AA 1000<sup>4</sup> a standard for measuring ethical behaviour of businesses; and Global Reporting Initiative (GRI) which provides balanced and integrated information regarding social, environmental and economic issues. Furthermore, Guttman (1998) pointed out the heated debate on the “right to know” as another important push for corporate recorded information disclosure in the form of sustainability reports. The GRI website presents an increasing number of companies pursuing sustainability reporting using GRI guidelines. Although the question of the auditability of these reports, to reconcile what is reported and

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<sup>1</sup> More information on Dow Jones Sustainability Index is at <http://www.sustainability-indexes.com/>

<sup>2</sup> For more information on Jantzi Social Index visit <http://www.jantzisocialindex.com/>

<sup>3</sup> More information on Innovest Eco Value ’21 at <http://www.innovestgroup.com>

<sup>4</sup> For more information on AA 1000 visit <http://www.accountability.org.uk/>

the recorded information on the ground, is not yet answered, King's (2001) empirical study proved that there is a financial gain for sustainability reporting companies.

Therefore the investigation of corporate records management for sustainability reporting in the Iringa region is timely. There are many records management studies in Africa. However, many of these studies tended to concentrate on public records at the expense of corporate private records management. For instance, Abbott (1999), Kalumuna (2000), Kitalu (2001), Ndibalema (2001), Nyirenda (1993) and Tafor (2001) to mention but a few authors of records management studies, neglected private companies' records, and particularly the records that emanate from sustainability reporting.

On the other hand, studies by Bjarnadottir (2002), Golovko (1999), Hedberg (2002), Hussey, Kirsop and Meissen (2001), Suarez (2001) and Taylor-Gee (1999) that assessed the sustainability reporting systems of various companies, firstly, considered only companies that were based in the West and secondly, neglected the management of records that were generated daily through sustainability reporting systems. Despite the fact that these studies provide a thorough understanding of records management and sustainability reporting, the missing link between a corporate records management system and sustainability reporting system, which creates a massive amount of records makes all these studies slanted. The records management studies mentioned above were not corporate based studies and the sustainability studies were company based, but without records management and developing countries' perspectives.

Therefore the premise of this study is the high probability of differences between what is reported in sustainability reports and what is in the corporate recorded information. The major support to the study's premise is the fact that organizations tend to ignore the management of records. In turn, the absence of proper records management acts as a barrier to extracting information to be reported. The reported lies of reputable companies justify the premise of this study. For instance, Nike in their code of conduct reported that "There shall be no discrimination based on race, creed, married or maternal status, religious or political beliefs, age or sexual orientation" (Welford 2002: 6). However, shortly after the release of their code of conduct one of Nike's employment advertisements in China stated that "Requirement: Female; Age 17-21; Qualification: Junior secondary or above; No colour blind or disability; wages at piece rate" (Welford 2002:6). With this and other lies such as Enron's



scandal (Hurley 2005: 248), the need for audited or verified sustainability reports is more acute than ever. In the Enron scandal, Arthur Anderson's records were reviewed to reveal facts (Reed 2005: 101). Arthur Anderson was the consulting company for Enron.

Since many companies tend to manage their corporate records haphazardly, the core issue of this study therefore is what would be the ideal model for a corporate records management system in Iringa region? This study is imperative not only for contextualizing a model for a corporate records management systems in the Iringa region but also for bridging the gaps left by the above studies of records management and sustainability reporting. The fact that almost nothing was known on the management of sustainability related records in the private companies in Tanzania and the fact that very little, if anything was known on the linkage between sustainability reporting and corporate records management systems supported the timeliness and topicality of the problem.

Drawing on a modified records life cycle framework and the comprehensive sustainability reporting criteria developed by the Global Reporting Initiatives (GRI) (Hussey, Kirsop and Meissen 2001), this study developed a model of a corporate records management system, which focuses on records emanating from a sustainability reporting system for companies in the Iringa region of Tanzania. The model developed acknowledges a synergetic relationship between a corporate records management system as an internal system and sustainability reporting as an external system. This is the first study to explore the link between corporate information management and corporate social responsibility and sustainability in Tanzania.

## **1.6 Purpose and specific objectives of the study**

The purpose of the study was to develop a model for a corporate records management system with special focus on sustainability reporting in the Iringa region of Tanzania.

In order to fulfil the purpose of the study, the following specific objectives were:

1. To examine the level of education attained and records management training attained by the heads of records management systems in the companies.
2. To identify sustainability reporting systems records series in the companies.
3. To examine companies' awareness of the ISO 9000 and the ISO 14000.

4. To examine the processes involved in the creation of corporate records related to sustainability reporting systems.
5. To explore challenges posed by information technology (IT) in the corporate records management systems.
6. To assess the facilities and procedures available and used for the storage and control of corporate records.
7. To determine the retrieval tools and distribution methods used in corporate records systems.
8. To determine records disposition practices.
9. To determine the nature of appraisal and retention schedules for corporate records.
10. To identify the availability of corporate records management policies and top management support for corporate records management.
11. To draw conclusions, make recommendations and propose a model depending on the study findings.

## **1.7 Research questions**

In order to achieve the above purposes and specific objectives the following research questions guided this study:

1. What are the highest education levels and records management training of heads of records management systems?
2. What records are kept in the corporate sustainability reporting systems?
3. Are the companies aware of the ISO 9000 and the ISO 14000?
4. What are the procedures in creating records for sustainability reporting?
5. What are the IT challenges for corporate records management systems?
6. What are the available facilities used to store and control records from a corporate sustainability reporting system?
7. What are the tools used to retrieve and distribute corporate records?
8. How are records from sustainability reporting transferred and disposed of?
9. What are the appraisal procedures and retention schedules for corporate records?
10. What are the management support and record management systems policies in the companies?



## 11. What are the conclusions, recommendations and the ideal model for corporate records management systems in the Iringa region?

### 1.8 Significance of the study

The significance of this study can be looked at from both the theoretical and practical points of view. Theoretically, this study contributes to the existing knowledge on the subject by integrating company records management system with a sustainability reporting system. As an academic exercise, the study lays the ground for further studies related to the issues of records management and sustainability reporting at company level. The study also provides a guide for Tanzanian companies that deal with international business on how to integrate sustainability reporting in their corporate records management systems. The findings and recommendations of this study also contribute to Tanzania's national information policy debate regarding the private companies' records management issues. The absence of an information policy in Tanzania was also spelt out by Mukangara (2000) and Sekimang'a (1992), in their studies of information resources management in government ministries in Tanzania and a national policy on information systems and services for Tanzania, respectively.

Practically, the model developed by this study could be adopted by companies wishing to publish sustainability reports. The proposed model may also be adopted by companies wishing to be certified by the ISO standards such as the ISO 9000 and the ISO 14001. It could also facilitate the establishment of a records management system in any company.

### 1.9 Assumptions of the study

The first assumption was that all companies generate records in the products and services production processes. The study also assumed that sustainability reporting was no longer an option but that it was regarded as part of the requirements for companies to operate. It was also assumed that companies recorded all the sustainability related activities. Therefore, the model developed facilitates the smooth management of the records emanating from sustainability reporting systems and foresees the future production and management of corporate records in the Iringa region of Tanzania. The smooth management of the records

keeping system is assumed to provide reasonable access to sustainability information to stakeholders in order to enhance stakeholders' dialogue and general corporate decision-making.

#### **1.10 Scope and anticipated limitations of the study**

The study covered corporate paper based records and electronic records that are sustainability related. The spatial scope of the study covered only exporting companies in the Iringa region in Tanzania. The study therefore assessed the existing records management practices and conceptualized the existing model of corporate records management systems and the shortcomings of the existing practices. Using the empirically identified shortcomings of the existing corporate records management practices in the Iringa region and the literature review, the study developed a new model for corporate records management systems. The model establishes the clear relationship between records management and sustainability reporting and proposes the use of existing records management knowledge to manage all types of records through a hybridized system. Finally, the scope of this study was limited to model development only. The model testing was beyond the scope of this study. However, areas for further research that will test the applicability of the developed model in real corporate life were identified.

The study used the GRI criteria as the benchmark for observations on and inquiry into types of records kept by the companies. The decision to use the GRI criteria as a benchmark was based on the conclusion made by scholars Hussey, Kirsop and Meissen (2001:18) who observed that "the GRI guidelines appear to be the best available tool for reporting comprehensive progress towards all aspects of sustainable development." Furthermore, they asked governments to support companies to adopt this international reporting initiative.

#### **1.11 Methodology**

Since the purpose of this study was to develop a model for a corporate records management system with a special focus on sustainability reporting, the empirical part of the study which established the existing situation of corporate records management systems in the Iringa region is considered to be descriptive and the model development is considered to be an exploratory inquiry. The study used a population of nine cases of companies from the Iringa

region in Tanzania. The study used primary and secondary data. Primary data were collected using interviews and observations. The secondary data which established variables for data collection and attributes of the model developed were collected using the literature review. The researcher administered the interview protocol to heads of the records management systems in the study cases. In the case of observation the researcher used the observation schedule and filled in all the observable predefined themes. The study used both qualitative and quantitative data analysis methods. For the former, the SPSS was utilized for the set of closed questions. The data presentation used graphs and tables drawn using Microsoft Excel software. The open ended questions in the interview and observation results were analysed using content analysis and were textually presented. A detailed research design and the general methodological issues are presented in Chapter Four.

### **1.12 Operational definitions**

In order to have a common understanding of the concepts which surround records management and sustainability reporting that also contributed to the identification of variables for investigation in this study, the following section provides operational definitions of the terms used in this study.

#### **Disposition**

The archive and records management programme of Oregon State University (1997) defined disposition as a phase in which records that are no longer needed for daily administrative tasks are destroyed or transferred to a records center, archive or inactive records storage space or retained forever in an administering unit. In the context of this study the Oregon State University's (1997) definition was used.

#### **Model**

According to Hestenes (1996: 8) a model is a representation of a structure in a physical system and/or its properties. Underwood (1996: 148) defined a model as being "anything which represents those parts of reality considered essential for some purpose." In the context of this study Underwood's (1996) definition was used.

## **Record**

The origin of the word record is the legal Latin word *recordum*, which means testimony of a witness. According to NARA (2001) “records include all ...papers, maps, photographs, machine readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by an agency...” In this study records will mean all the feeder reports to the overall sustainability reporting system and the general sustainability reports, which provide evidence of sustainable development activities of the companies in the Iringa region. The sustainability records might be in paper or electronic form.

## **Record creation**

According to the US EPA (2002), records creation “is the first stage of the records life cycle in which records are made (or received) by an office.” In this study, records creation means the second phase after the pre-natal phase where a record keeping system is designed. This is the phase in which occurs the determination of the number of copies, the manner in which the records will be used, how they are going to be distributed and how they will be produced efficiently.

## **Records disposal schedule**

According to Walne (1988: 131) a records retention schedule or records disposal schedule is: a document describing the recurring records of an agency institution or administrative unit, specifying those records to be preserved as having archival value and authorising on a continuing basis and after the lapse of specified retention periods or the occurrence of specified actions or events, the destruction of the remaining records.

In this study, a records disposal schedule means a document specifying the records to be preserved after a specified records retention period.

## **Records management**

According to NARA (2001), records management is “the field of management responsible for the systematic control of creation, maintenance, use and disposition of records”. In this

study, therefore, records management means the planning and controlling of sustainability reporting records from the time of creation until their final disposition.

### **Records Management System (RMS)**

According to the US EPA (2002), a RMS is “a manual or automated system in which records are collected, organized, and categorized to facilitate their preservation, retrieval, use, and disposition”. On the other hand Rhoads (1989: 4) defined a RMS as :

...everything that happens to records throughout their ‘life cycle,’ that is, from their ‘birth,’ through their productive ‘life’ as means of accomplishing the organization's functions, to their ‘death’ or destruction when all useful purposes have been served, or their ‘reincarnation’ as archives if they warrant permanent preservation.

In this study, the US EPA’s (2002) and Rhoads’ (1989) definitions are adopted for a common understanding of the term RMS.

### **Use and maintenance**

According to the US EPA (2002) glossary, records use and maintenance “is any action involving the storage, retrieval, and handling of records kept in offices.” The study will adopt the US EPA’s definition and use it when designing a filing system and identifying decisions on whether the system will be centralized or decentralized, a numeric filing system or alphabetic or the combination of both.

### **Sustainability reporting**

The World Business Council for Sustainable Development (WBCSD) (2002:7) defined sustainability reporting as:

Public reports by companies to provide internal and external stakeholders with a picture of corporate position and activities on economic, environmental and social dimensions. In short, such reports attempt to describe the company’s contribution towards sustainable development.

The study adopts the definition of the WBCSD in order to design a corporate records management system to capture and manage a sustainability reporting system.

## **Sustainable development**

The WBCSD (2002:6) defined sustainable development as a “development which meets the needs of the present without compromising the ability of future generations to meet their own needs”. The WBCSD (2002) further noted that from a business point of view, sustainable development has three perspectives: economic, environmental and social. The study adopts the WBCSD definition.

### **1.13 Outline of the thesis**

This chapter established a general introduction of the study. The chapter included the rationale and the background of the study. The chapter also pointed out the advantages of proper records management and the consequences of poor records managing. The chapter also provided the statement of the problem which is the core idea of the research. The general purpose which is to develop a model of a corporate records management system and specific objectives and research questions are also stated in this chapter. The chapter also highlighted the scope and limitations of the study and provided a brief methodology used in the study. Finally the chapter provided definitions of terms used in this study.

Chapter Two puts the study into the context of Tanzania and the Iringa region in particular. It shows where the study was conducted. The chapter also illustrates the spatial boundary of the study and the economic activities of the Iringa region. The chapter demonstrates the rationale of choosing Iringa as the study area. The chapter also provides the overview of sustainable development initiatives such as institutions and policies related to sustainability in Tanzania.

Chapter Three presents a review of literature to position this study with other studies and to explore available knowledge in the study area. The historical review, theoretical review and general review of literature is presented in this chapter to demonstrate the theoretical foundation of the research base. The literature review is categorised into four parts: theoretical frameworks, sustainability, records management, and model building. The literature positioned the study with other related studies in terms of methodologies used and also identified data collection variables and attributes of the proposed model developed. The chapter also identified types of models and the type of the model adopted in this study.

Chapter Four presents the methodology of the study. The chapter demonstrates the entire research design. The chapter demonstrates the data collection tools, data collection procedures and data analysis methods. The chapter also discusses reliability, validity and ethical issues in the context of this study. The chapter also evaluates the methodology used in general.

Chapter Five presents the empirical data of the research. In this chapter empirical data are presented in the form of figures, tables and narrations. The reasons for questions asked and answered in this study are also provided before the empirical data presentation.

Chapter Six discusses the meaning of the results in the context of this study. The chapter answers the question: What do empirical results mean in the context of this study? The chapter interprets the implications of the results and discusses variations of different results from interviews and observations.

Chapter Seven summarizes the findings and conclusions of the study. The chapter also conceptualizes the old model of corporate records management in the Iringa region and the proposed model developed in this study. The chapter also presents recommendations of the study based on research questions of the study. Finally, the chapter suggests areas for further research.

#### **1.14 Summary**

Private corporate records need urgent attention due to the fact that competitive advantage in international markets requires proper records management systems. Previous records management studies ignored private corporate records. On the other hand, earlier sustainability reporting studies did not deal with internal systems of companies such as corporate records management systems. Therefore it was established that almost nothing is known about the corporate records management for sustainability reporting and very little if any is known on the link between corporate records management and sustainability reporting world wide and Africa in particular. This chapter described the inquiry as attempting to fill some of the gaps of previous studies by developing a model of a corporate records

management system focusing on sustainability reporting. The next chapter puts the study into the context of Tanzania and the Iringa region in particular.



## CHAPTER TWO

# Study Area and Sustainability in Tanzania

### 2.0 Introduction

The major purpose of the first chapter was to set the scene for the study. Therefore the intention of the current chapter is to put the study in the national context and indicate the environment from which the data was collected. The chapter therefore, presents a short description of Tanzania and a profile of the Iringa region in terms of population, climate and economic activities. The chapter also provides an overview of sustainable development initiatives in Tanzania. The final section provides a brief summary of the chapter.

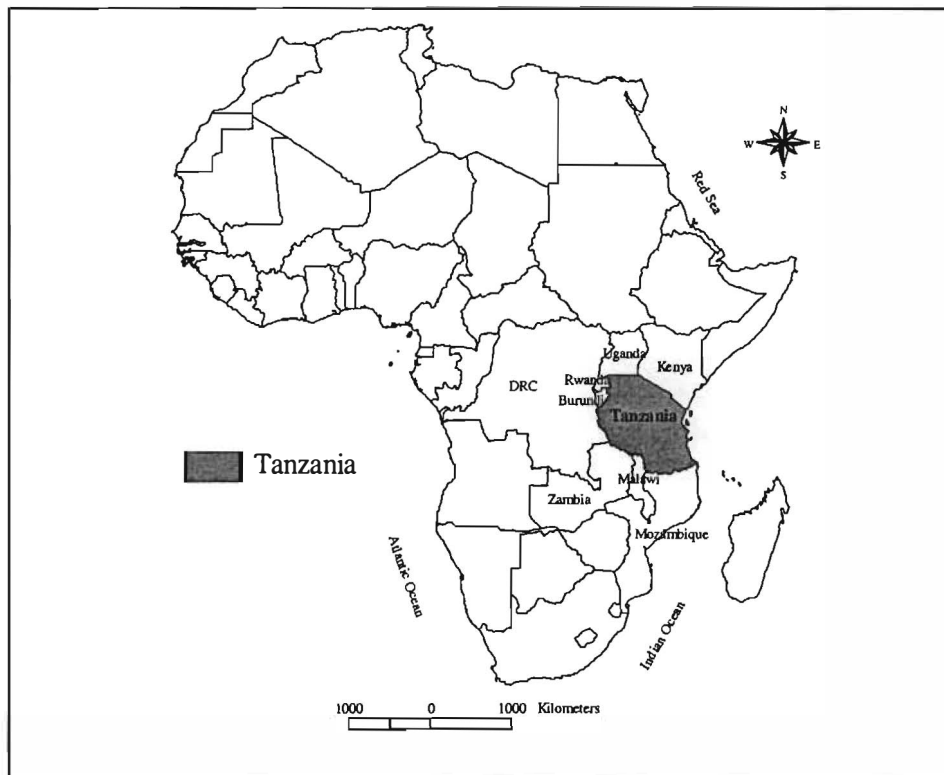
### 2.1 The area of the study

The spatial scope of this research was Tanzania and the Iringa region in particular. Therefore the following sections provide overviews of the study areas.

#### 2.1.1 Overview of Tanzania

The United Republic of Tanzania, otherwise known as Tanzania, is the union of two countries: Tanganyika (mainland) and Zanzibar (islands). Geographically Tanzania is in East Africa, bordering on the Indian Ocean between Kenya and Mozambique (See figure 1). The geographical coordinates of the country are 6°00' S, 35°00' E. The total area of Tanzania is 945 100 square kilometres, of which 942, 453 square kilometres are on the mainland and the remaining 2,647 square kilometres are on Tanzania Islands (Microsoft Encarta Online Encyclopaedia 2004). The land boundary of Tanzania is 1 424 kilometers of coastline that makes the country among the countries with the longest coastline in Africa. In the north, the country borders Kenya and Uganda. It borders Burundi, Rwanda and the Democratic Republic of Congo in the west, Zambia and Malawi in the southwest, and Mozambique in the south (see figure 1) (CIA 2004)

**Figure 1: The location of Tanzania on the map of Africa**



**Source:** Extracted from ESRI (1996) GIS database

The climate of Tanzania varies from tropical to temperate along the coast and in the highlands respectively. The elevation extremes of Tanzania are 0 metres at the Indian Ocean and 5 895 metres at the top of Mount Kilimanjaro. The major natural resources are: land, hydropower sources, tin, phosphate, iron ore, coal, diamonds, gemstones, gold, natural gas and nickel. The land distribution based on usage in Tanzania is 3% arable land, 1% permanent crops, 40% permanent pastures, 38% forests and woodland and 18% is for other activities. The major natural hazards are the tsetse fly and flooding on the central plateau during the heavy rainy season. The current environmental problems, which deter the implementation of sustainable development are soil degradation, deforestation, desertification, destruction of coral reefs and droughts that affect marginal agriculture (CIA 2004). Administratively, the mainland of Tanzania is divided into 21 regions and Zanzibar into 5 regions. Tanzania is a multiparty state with 16 registered political parties (Government of Tanzania 2004).

The religious distribution of the country is 45% Christian, 35 % Muslim and 20% indigenous religious believers. Tanzania has 26 regions and the law that governs the country is based on the English common law. Tanzania's government has three main organs, namely an executive branch, a legislative branch and a judicial branch. The executive branch consists of the chief of states, the head of government (The president), and cabinet ministers. The legislative branch is the national assembly. The judicial branch comprises only the court of appeal (CIA 2004).

### **2.1.2 Population**

The population of Tanzania was 34.6 million people in the August 2002 national population and housing census (URT 2002b:87). Out of 34.6 million people 16.9 million people are males and 17.7 million people are females. Among 34.6 million people 33.6 million people live on the Tanzanian mainland and 984, 625 people live on the Tanzanian Island (Zanzibar). The growth rate of population is 2.9% per annum (URT 2002b:87). In the composition of Tanzanian population native Africans comprise 99% of the ethnic groups in Tanzania and 1% are the others that consist of Asians, Europeans and Arabs (CIA 2004).

### **2.1.3 Economic issues in Tanzania**

Economically, Tanzania is one of the poorest countries in the world. The Gross Domestic Product (GDP) in real terms was 6.2% in 2002. The major economic activity is agriculture, which provides 47.5% of the GDP (URT 2002b:3). Agriculture also contributes to 85% of the exports and employs 90% of the workforce in Tanzania (CIA 2004). However, in some areas the climatic conditions limit agricultural development in the country. Industries account for 17% of total GDP and are mainly producers of light consumer goods and agricultural product processing industries (See Table 1: for an overview of sectoral contribution to the GDP). The major agricultural products processed are sugar, beer, cigarettes, sisal, tea, coffee and twine. Some of the product processes carried out in Tanzania are diamond and gold mining, oil refining, cement, textile, wood products and fertilizer (CIA 2004).

**Table 1: Sectoral contribution to the real GDP**

SECTOR	CONTRIBUTION TO GDP
Agriculture	47.5%
Trade, hotels and restaurants and tourism	16.6%
Financial, insurance, real estate and business services	10.0%
Manufacturing	8.4%
Public and other services	7.3%
Transport and communication	5.5%
Construction	5.0%
Mining and quarrying	2.7%
Electricity and water	1.6%

**Source:** The information in this table is extracted from URT (2002b:3)

The major means of transportation are railways which cover 3 569 kilometres in total, and highways, with a total 88 000 kilometres which have only 3 696 kilometres paved and the remaining 84 304 kilometres unpaved. Tanzania has 110 airports, 39 with paved runways and 71 with unpaved runways. Tanzania has a pipeline of 982 kilometres to transport crude oil. There are waterways in Lake Tanganyika, Lake Victoria, Lake Nyasa and the Indian Ocean. The ports and harbours are Bukoba, Dar Es Salaam, Kigoma, Lindi, Mkoani, Mtwara, Musoma, Mwanza, Tanga, Wete and Zanzibar (CIA 2004).

The Ujamaa policies followed by Tanzania up to early 1980s, necessitated reforms towards a market economy. The 1980s policy reforms such as Structural Adjustment Program (SAP) and other economic structural adjustment programmes pushed Tanzania to enact an Investment Promotion and Protection Act in the year 1990. The Act officially introduced the market economy in Tanzania (Materu-Bahitsa 1994). The market economy facilitated the privatisation of government owned enterprises in Tanzania. Having public enterprises in the hands of private investors and the policy emphasis directed towards stimulating private ownership have notable implications in terms of competition and the implementation of sustainable development objectives. The pursuit of sustainable development among other

things needs an information infrastructure in terms of a country's information policy and incentives to support its implementation.

The need for an information infrastructure as a support for achieving sustainable development goals acts as a clear indicator of the importance of the information profession in pursuing sustainable development goals. Records and archive management as part of the information industry is a very important support system for sustainability. For instance, in the context of environmental problems, records could prove a climate change trend, desertification, soil degradation, drought history, biodiversity trends, coral reefs history, solid and liquid wastes impacts on the environment, to mention but a few aspects of sustainability.

#### **2.1.4 Information infrastructure in Tanzania**

Despite all the economic changes in Tanzania that are characterized by serious international competition and pressure to pursue sustainable development goals Tanzania operates without an information policy to facilitate sustainable development activities. Scholars such as Kilemile (1995:25) and Mukangara (2000) indicated in their studies the lack of an overall coordinated policy to direct information activities in Tanzania. To fuel the debate of information policy in Tanzania, Sekimang'a (1992) provided a very comprehensive proposal for information policy formulation and implementation in Tanzania. In responding to scholars' claims, the government of Tanzania has recently published its first version of Information and Communication Technology (ICT) policy and in the year 2002 the government released the Records Management Act (URT 2002a; URT 2003a). Therefore it is pertinent to have a contextual overview of business records management in Tanzania.

#### **2.1.5 Business records management in Tanzania: an overview**

The coastal areas of Tanzania have a long history of conducting business. According to Mwango (2000: 10-11) the main reason for Persians, Portuguese and Arabs from Oman to settle in Zanzibar was the proliferation of trade in the coastal zone of Tanzania. Generally, the Tanzanian coastal zone had traceable business contacts with Egypt, India, China, Assyria, Phoenicia, Arabia, Greece and Rome before A.D. 1000. Mwango (2000: 11) also noted that missionaries, hunters and explorers recorded most of their experiences and transactions in Tanzanian coastal zone. He stated:

The traders, missionaries, hunters, explorers...recorded whatever they saw and experienced in respect to social-cultural life of indigenous people as well as their economic activities. Such records form private papers found outside the country particularly in institutions of higher learning and cultural centres of Western countries as well as in private hands.

Based on the quotation above from Mwango's (2000) thesis, one would note that the history of business record keeping in Tanzania is a long one. However, Germans and Britons laid down the formal procedures for records management during the colonial period. Karugila (1989:15) cited in Mwango (2000: 13) revealed that in 1891 some record keeping systems were functioning properly in the then Tanganyika. It was further revealed that filing systems were organized by the following subjects: organization and administration, finance, shipping and the navy, army, district administration, medical, customs and taxes, personal, justice, library, construction, trade, mining, missions and schools, and scientific expeditions (Karugila 1989 in Mwango 2000:13).

To date, the Tanzania national archives holds many archives that were created during the German colonial period. The evidence of filing systems in business related records such as customs and taxes, finance, trade and mining and administration shown in Mwango (2000) indicates the long history of business records management in Tanzania. However, it can be argued that nowadays the government has not put sufficient effort into addressing the issue of managing business or private records. In spite of addressing the issue of paper based records positively in the recent Records and Archives Management Act (2002), in reviewing the Act of 2002, one would argue that the Tanzanian government has forgotten its own prolific electronic records that are generated in government offices daily. Additionally, the government, in the Act, paid little attention to business records while the majority of government enterprises are privatized and the country is a party to various sustainability related treaties and conventions. In section 26(1) for instance, the Act revealed a genuine interest in acquiring private records of national importance and public interest. Apparently, the privatisation and open market practices attract both environmentally conscious and non-environmentally conscious investors, and the government needs to monitor them through auditing recorded information of their operations.

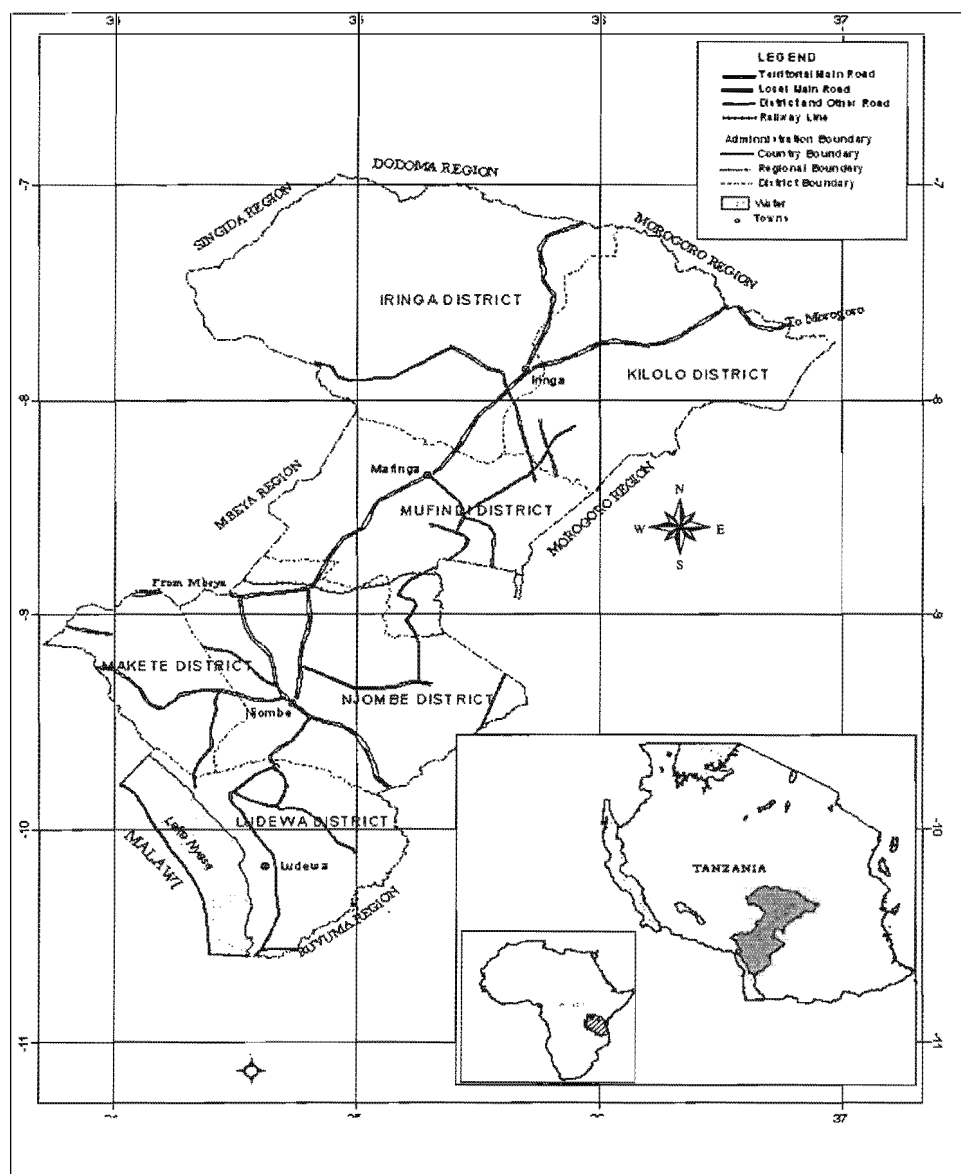
As mentioned later in this chapter, Tanzania is party to several international agreements, which relate to environmental improvements. One would argue that the international conventions signed and ratified by the Tanzanian government should be a trigger for setting up and including environmental monitoring aspects in the country's policy, especially legislation. At the outset, the government has not included electronic and private records monitoring or requirements in its Act of 2002. This implies that the government has forgotten that it is bound by environmental conventions such as the biodiversity convention.

The legislation problem occurs not only in Tanzania. Abbot (2001: 64 - 65), for example, complained about the absence of legislation for implementing formal records management programmes in private institutions in South Africa. However, in South Africa, the Promotion of Access to Information Act, number 2 of 2000, which requires private institutions to present a guidebook with the narration of record holdings, raises some hope for formal private records management programmes in South Africa.

#### **2.1.6 Profile of the Iringa region**

The Iringa region is one of the 21 regions of mainland Tanzania and is situated in the southern highlands of Tanzania. The region has a total population of 1,495,333 people (4.3 % of the total national population). Out of the total population in the Iringa region, males comprise 708,927 and females 786,406 (National Bureau of Statistics 2003:99; Government of Tanzania 2004). Iringa has an area of 5.9 million ha of which 73% is arable land. The area that is used for agricultural cultivation is 6.8% of the total regional area (National Bureau of Statistics 1997). The Iringa region has seven administrative districts: Iringa urban, Iringa rural, Mufindi, Njombe, Makete, Rudewa and Kilolo (see figure 2).

**Figure 2: The map of the Iringa region showing districts, location of Iringa on the map of Tanzania and the location of Tanzania on the map of Africa.**



**Source:** Extracted from ESRI (1996) GIS database



### 2.1.7 Rationalization of the Iringa region choice

The choice of the Iringa region was inspired by the fact that this region is one among four regions that are most popular for agriculture and food crops in particular. Other regions, which together with Iringa are known as the 'Big Four' are Rukwa, Ruvuma and Mbeya. The majority of food in Tanzania comes from these four regions. These agricultural and other economic activities in the Iringa region demand sustainability reporting which is high on the agenda world wide. Earlier studies, such as WEPA (2002), also used the same reason of Iringa being among the four biggest producers of food crops and cash crops to justify their proposal to alleviate poverty in Iringa.

Additionally, the choice of the Iringa region was also motivated by the Iringa Declaration of *Siasa ni Kilimo* (literally meaning politics is agriculture), which was hosted by the region in 1972 (Azimio la Iringa 1972). It is likely that the importance of Iringa's contribution to the economy of the country and national food reserve motivated the government to select the region among 26 regions in the country to host the Iringa Declaration. Agriculture contributes 47.5% of the overall GDP in Tanzania. The event of the Iringa Declaration enhanced agriculture and industrial support infrastructures in the region, which in turn attracted more agricultural projects and industries to the Iringa region. Due to agricultural and industrial activities in it, the region is among the first 10 regions to contribute significantly to the national GDP. To substantiate the role and the importance of the Iringa region in the Tanzanian economy, the highly reputed Economic and Social Research Foundation (ESRF) strongly argued that:

It is a region that is not only self sufficient in food, but which also makes a big contribution to the national grain reserve. It is the leading producer of two Tanzanian most marketable cash crops, tea and pyrethrum. It is the site of one of the biggest paper mills on the African continent. It is also one of the most spectacularly beautiful regions in Tanzania, home to the biggest elephant sanctuary in the world, and could quite obviously attract large number of tourists. (ESRF 2000:23)

The contribution of the Iringa region to the national GDP, the hosting of the Iringa Declaration and the resulting conducive industrial infrastructure, being among the four biggest food producers, and the familiarity of the Iringa region to the researcher justifies the

selection of the region as the geographical scope of this study. This study, therefore, is an attempt to contribute to the question of corporate sustainability using record management systems as a tool to achieve sustainability reporting, which in turn contributes heavily to pursuing sustainable development objectives in Tanzania as a whole and particularly in the Iringa region.

#### **2.1.8 Economic activities in the Iringa region**

According to URT (1997) the major economic activities of the Iringa region are agricultural, livestock farming, mining, industrial forestry and wild life activities. ESRF (2000) provided a comprehensive description of economic activities of the Iringa region and listed tea as one of the most important economic activities in the Iringa region. The foundation also noted that Iringa is the biggest producer of tea in Tanzania, and further stated that the tea produced in Iringa accounts for 75% of all the tea production in Tanzania. Since most of the tea processed in Iringa is exported, the current study included all the tea companies in the Iringa region except their subsidiaries such as: the Lupembe Tea Factory, which uses Tanganyika Wattle and Tea Company to export and the Luponde Tea Factory which is part of the Mufindi Tea Company. The Tanganyika Wattle and Tea Company and the Mufindi Tea Company are among the cases in this study. The possible factors making Iringa the biggest grower of tea are: fertile land, availability of labour, reliable export and internal markets and the overall institutional and trade liberalization reforms taking place in Tanzania.

Iringa is also the biggest producer of Pyrethrum in Tanzania. The Pyrethrum produced in Iringa accounts for 95% of the Pyrethrum grown in Tanzania. Most of the crude Pyrethrum extract is exported to South Africa. The crude exports account for 90% of all the Pyrethrum production. The major problem of the Pyrethrum industry nowadays is the low purchase prices realized by the farmers (ESRF 2000). The Tanzania Pyrethrum Factory was also among the cases in this study.

The production of food crops such as maize, beans, millet, sorghum, vegetables and different types of fruit is very high. The ESRF (2000) also acknowledged the substantial contribution of Iringa to the Tanzanian food reserve. Iringa has been producing a surplus of food crops for many years. For example, in the 1995/96 season, Iringa food production was 43.6% above the

food demand of the region itself (ESRF 2000:20). The probable reasons for high food production are the good weather and fertile soils of the region for agricultural activities, and international projects initiated by the World Bank, the International Fund for Agricultural Development (IFAD), and Global Sasakawa 2000 to stimulate agricultural activities in the region. These projects provided financial services to farmers and made farming inputs available to the rural dwellers in the Iringa Region. These projects also created a ready market through the National Milling Corporation (ESRF 2000).

With the initiatives of these projects and the determination of the people of Iringa, the region dominates the production of tomatoes, potatoes and wood. For example, in Dar Es Salaam, the biggest city in Tanzania, 65% of tomatoes used are from the Iringa region (ESRF 2000). The Dabaga vegetable canning industry purchases a large number of tomatoes for processing to cater for their export and internal markets. Dabaga Vegetable is among the cases in this study. Iringa is also well known for potato production. According to the ESRF (2000: 21) the southern highland area, where Iringa is located, produces 90% of the potatoes in the country. Additionally, Iringa has 157,100 ha of forests rich in biodiversity and raw materials for wood works. The major industry in this area is the Sao Hill Saw Mill Company Limited. This company is also included in this study. The region also has tourist attraction areas that contribute to the economic activities. The tourists' destinations in the Iringa region include historical sites such as Isimila, which has a large number of stone tools. The landscape of big tea plantations in the Mufindi and Njombe districts also attracts tourists. The Ruaha National Park, which is second largest in Tanzania with 13 square kilometres, is also in the Iringa region. According to the ESRF (2000: 22) the Ruaha National Park is one of the world's largest elephant sanctuaries. However, one of the biggest problems of this national park is accessibility especially during the rainy season.

Despite the considerable success in a number of economic activities, the people in Iringa are still poverty stricken in terms of income poverty and non-income poverty such as education poverty (URT 2003b). The reasons for the high level of poverty in Iringa are probably due to irresponsible companies and poor management of the region. It is important, where sustainable development is on the national and international agenda, for companies to be socially responsible and contribute positively to the reduction of poverty in the places in which they operate. It is the assumption of this study that a corporate records management system, which is the core in proving corporate social responsibility (CSR) in terms of

accountability, reduction of corruption, openness or transparency and the whole question of corporate good governance would make a tangible contribution to national and regional sustainable development objectives. It is important at this point to have a glimpse view of sustainable development initiatives in Tanzania.

## **2.2 Sustainable development in Tanzania**

The implementation of sustainable development takes different shapes in different countries. For example, in the United Kingdom's strategy towards sustainable development as reported by the DETR (1999: 24), the UK government provided a consultation document for the community to suggest "Opportunities for change". The document listed several objectives and principles for sustainable development such as effective protection of the environment, prudent use of natural resources, and maintenance of a high and stable level of economic growth and employment. Perhaps the most important observation in the UK scenario is the participatory approach used in stimulating sustainability. For instance, 1000 people responded to the "opportunity for change" document. Over 4500 responded to the summary version of the consultation document. In the responses, members of the UK community indicated a high interest in companies' environmental and sustainability reporting (DETR 1999: 24).

In Tanzania, the strategy towards sustainability is not a participatory one. According to Adrian (1997) the strategy of sustainable development in Tanzania started in the year 1978 as a result of the Stockholm Conference. The Tanzanian government consulted the World Conservation Union (IUCN) regarding environmental awareness for Tanzanians (Adrian 1997). The IUCN and the Tanzanian government's discussion led to the establishment of an inter-ministerial committee on environmental issues in 1979 and the passing of Act 19 of 1983 that established the National Environment Management Council (NEMC), which was inaugurated in 1986. The main objective of the NEMC was to take care of all environmental matters in Tanzania.

Adrian (1997: 120) further noted that the NEMC established the National Conservation Strategy (NCS). In December 1992 the NCS was renamed the National Conservation Strategy for Sustainable Development (NCSSD) and its main duty was to cover environment and development issues as stipulated in the United Nations Conference for Environment and Development (UNCED) in Rio. The main focus of the NCSSD is to deal with environmental

sustainability and the efficient use of resources in Tanzania. To promote awareness of the NCSSD, the government convened a meeting for regional and district executive officers, district planning officers, and Non-Governmental Organizations (NGOs) in February 1994 in the Arusha region. The meeting addressed environmental problems and mitigation of those problems in the regions and districts and how mitigation could be linked to the NCSSD objectives (Adrian 1997).

Before the Arusha conference the government initiated the National Environmental Action Plan (NEAP) in 1993. A key component of the plan was the call for the appointment of environmental officers in every institution in Tanzania and the formalization of environmental impact assessment in Tanzania (Adrian 1997). According to Adrian (1997: 131), the NEAP has a national focus while the NCSSD has a regional and district focus and local implementation. Both institutions address the issues of soil erosion, desertification, deforestation, water and air pollution and loss of biodiversity. Perhaps the important thing to note is one of the specific objectives of the NCSSD, which establishes clear roles for central government, local and regional government, NGOs, the private sector and individuals for sustainability (Adrian 1997:119). One could observe that based on the Arusha Conference of 1994 and the specific objectives of the NCSSD above there is a reasonable awareness of sustainability issues in Tanzania. Team (2004) also observed that daily Tanzanians' activities are becoming more conducive to sustainable development, which implies a growing awareness and knowledge of sustainability among different stakeholders in Tanzania. Such sustainability awareness and knowledge is important in order to take appropriate actions for a sustainable future in Tanzania.

### **2.2.1 Conventions ratified in relation to sustainable development**

Tanzania is a party to the following international conventions and treaties: Convention on Biodiversity; Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and related Protocols; United Nations Convention to Combat Desertification; United Nations Framework Convention on Climate Change; The Vienna Convention on the Protection of Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer; Basely Convention on the Control of Tran-boundary Movement of Hazardous Wastes and their Disposal and Bamako Convention on Ban of the Import into Africa and the Control of Tran-boundary Movements of Hazardous

Wastes within Africa (CIA 2004; Mwalyosi 2004). The challenge for Tanzania is to implement the above sustainability related treaties and conventions under the current market economy.

The free market economy adopted by Tanzania necessitated the handing over of most of the previously public enterprises to private investors. Since the private sector is one of the major contributors to environmental degradation, the implementation of ratified international conventions and agreements in order to pursue sustainable development requires close cooperation between the private sector and the government. In this regard, the government needs to establish policies to push the sustainable development agenda forward, giving high priority to private firms. In the context of this study, the government could establish information infrastructure policies, national sustainability related institutions and policies that are conducive to the monitoring and evaluation of sustainable development activities in the private companies. The next sections present the institutions and policies to support sustainability in Tanzania.

### **2.2.2 Sustainability related institutions and policies in Tanzania**

Since sustainability issues are complex, various mechanisms need to be in place to support sustainable development in Tanzania. There are several institutions, organizations and policy measures for sustainability in Tanzania. Foremost, the United Republic of Tanzania constitution as amended in 1984 provides a Bill of Rights to all citizens. The Bill of Rights argues that every person has a right to life and to the protection of life by society (URT 1977). Article 9 of the constitution requires the government to ensure national resources are harnessed, preserved, and applied towards the common good.

There are various institutions that are directly involved in sustainability related issues in Tanzania. The first institution in relation to businesses sustainability issues is the Investment Promotion Center (IPC), established by the Tanzania Investment Act of 1997. The IPC's function, among others, is to ensure investments projects use environmentally sound technologies, restore, preserve and protect environment (URT 1997).

Earlier legislation included the National Environmental Management Council Act of 1983. This was the first law to demonstrate serious interest by the government in sustainable

development issues (URT 1983). The newly enacted Environmental Management Act of 2004, which came into force in the beginning of 2005, demonstrates the willingness of the government and other stakeholders in Tanzania to pursue sustainability. This Act established the National Environmental Management Council (NEMC) in Tanzania. NEMC acts as an advisory body to the government on all matters relating to the environment. As part of its advisory capacity NEMC's functions are to formulate and recommend policies, stimulate public and private participation in the optimal use of natural resources, specify standards and norms, establish documentation systems, formulate proposals for legislation, establish and maintain liaison with other national and international organizations, undertake general environmental education programmes, initiate environmental protection, prevention, control, and pollution mitigation, obtain internal or external expert advice on environmental matters, establish short and long term plans for environmental management and protection and prepare a National Strategy for Sustainable Development (NSSD) (URT 2004).

Overall, the National Environmental Act 2004 which repealed the National Environmental Management Act, 1983, provides

- A legal and institutional framework for sustainable management of environment
- An outline principle for management, impact and risk assessment, prevention and control of pollution, waste management, environmental quality standards, public participation, compliance and enforcement
- A basis for implementation of international instruments on environment;
- Implementation of the National Environmental policy;
- For continued existence of the National Environment Management Council and; provides for establishment of the National Environmental Trust Fund to provide for other related matters. (URT 2004)

The Vice President's Office coordinates the implementation of Agenda 21 or the Rio Summit action plan for sustainable development promotion. The Division of Environment in the Ministry of Tourism deals with the overall environmental matters in Tanzania. Other ministries directly involved in the implementation of Agenda 21 are the Prime Minister's office; the Planning Commission; the Ministry of Agriculture; the Ministry of Water, Energy and Minerals; the Ministry of Lands, Housing and Urban Development; the Ministry of Education and Culture; the Ministry of Science, Technology and Higher Education; the

Ministry of Community Development, Women Affairs and Children; the Ministry of Industries and Trade; and the universities (LEAT 1999)

The National Environmental Policy (NEP) provides fundamentals for environmental consideration in Tanzania. It provides guidelines and plans for priority actions. It also provides sectoral and cross sectoral policy analysis in order to exploit synergies among sectors and interested groups. The overall objective of the NEP is to ensure sustainable, equitable use of environmental resources in Tanzania. The National Environmental Policy also provides methods for executing environmental impact assessment, environmental legislation, economic instruments, environmental standards, and indicators. It provides a unified set of principles to address environmental issues in Tanzania. To implement the policy, the government of Tanzania produced a National Environmental Action Plan (NEAP). The NEAP seeks, among other things, to integrate environmental policy and the environment conservation strategy into planning and implementation processes (NEAP 1997).

### **2.2.3 What can Iringa Region business community do to support sustainability?**

There are various ways for Iringa region businesses to support sustainability initiatives in Tanzania. The widely acceptable methods are the certification of environmental management systems and/or quality systems. These systems are ISO 14001 and ISO 9000 series respectively. The major issues in business sustainability are: energy and water use, transportation costs, purchases, waste production, inefficient use of raw materials, packaging, technology, gender and equal opportunity issues, child labour, health and safety and relationship with surrounding communities to mention but a few (Brorson and Gösta, 1999).

In order for businesses in Iringa region to move towards sustainability the following must be done: proper use of unused land, Saving energy and water, recycling and reusing wastes and phasing out old technologies. For instance, unused land can be turned into wildlife gardens, fish ponds or community educational areas. Energy use must be minimized and water use closely monitored to save money and conserve the environment. To minimize waste production, companies must recycle and reuse materials and products. The old technologies which are inefficient and potential sources of pollution must be replaced by new, low cost technologies. These new technologies can reduce pollution and improve energy consumption and environmental degradation (Brorson and Gösta, 1999). Most importantly, one could



argue that companies in Iringa region must publish yearly sustainability reports. The sustainability reports will support companies in terms of reputation building and gaining more market shares in the sustainability conscious markets. Additionally, sustainability reporting for Iringa companies is part of corporate social responsibility (CSR) and accountability of the companies to their stakeholders.

### **2.3 Summary**

To sum up, the chapter provided a brief introduction of Tanzania and its environment. The chapter gives an overview of Iringa region and its economic profile. The chapter provided conventions and treaties signed and ratified by Tanzania. These conventions and treaties are: Convention on Biodiversity; Convention for the protection, management and development of the marine and coastal environment of the Eastern African Region and related protocols; United Nations Convention to Combat Desertification; United Nations Framework Convention on Climate Change; The Vienna Convention on the Protection of Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer; Basely convention on the control of Tran-boundary Movement of Hazardous wastes and their disposal and Bamako convention on Ban of the import into Africa and the control of Tran-boundary movements of Hazardous wastes within Africa. The chapter demonstrated the lack of coordinated information policy in Tanzania. The chapter provides an overview of sustainability initiatives in Tanzania. Lastly the chapter presents the institutions and policies related to sustainability in Tanzania.

## CHAPTER THREE

### Literature review

#### 3.0 Introduction

There are many reasons for conducting a literature review, and different scholars argue differently for such a review. The following two scholars inspired the review of the literature in this study: Jankowicz (2000: 159) commented that,

Knowledge does not exist in a vacuum, and your work only has value in relation to other people's. Your work and your findings will be significant only to the extent that they are the same as, or different from, other people's work and findings.

Perry (1994: 15) advocated that the literature review identifies research issues to be researched. Furthermore, he lamented:

A Ph.D. thesis should not concentrate on the area of the research problem [only], but also show links between the research problem and the wider body of knowledge. That is, the literature review should include the immediate discipline of the research problem and also demonstrate a familiarity with its parent discipline.

This literature review was undertaken with the above in mind. The literature review's objective was to build a theoretical foundation and to identify variables for data collection and attributes for the new model proposed in this study. The review is divided into four linked parts. The first part demonstrates trends and issues regarding sustainable development and sustainability reporting in particular. This part is intended to identify records series in sustainability reporting systems and to show the connection between sustainability reporting and records management systems. As Perry (1994) noted above, another reason for the literature review is to demonstrate an understanding of sustainability reporting as an immediate issue for the research. The second part establishes the theoretical framework of the study. The rationale for this part is to discuss the existing records management theories and identify the theory which guided the study. The third part presents records management as the main focus of the study. It covers contemporary issues surrounding the discipline and also identifies variables used for data collection and reveals the requirements for a proper records management system or attributes for the proposed model. The fourth part of the literature review deals with models and modelling approaches. The main purpose of this part is to

demonstrate model types, modelling approaches and to identify the model type used in this study.

### **3.1 Sustainability and sustainability reporting**

As noted in the introduction this section covers sustainable development and sustainability reporting. The trends for sustainable development and incentives for sustainability reporting are revealed. Records series emanating from sustainability reporting systems are also presented.

#### **3.1.1 Sustainability: a brief historical background**

The terms “sustainability” or “sustainable development” have become quite important in many ways, for instance in political speeches, economists’ writings, environmental campaigns, and funding proposals (Bell and Morse 1999). It was observed, “everyone agrees that sustainability is a good thing” (Allen and Hoekstra 1993 in Bell and Morse 1999:3). Sustainable development issues form the focus for workshops, seminars and many international conferences all over the world. Scholars note that the words “sustainable development” or “sustainability” is one of the signals for many proposals to get funding from international agencies, to quote Lele’s (1991) words in Bell and Morse (1999: 3):

Sustainable development has become the watchword for international aid agencies, the jargon of development planners, the theme of conferences and learned papers, and slogan of development and environmental activists.

It is difficult to state the exact time of the emergence of the concept of sustainability. Different scholars suggest different times for its emergence. For instance, Katundu (1998) revealed that the term “sustainability” emerged in Hotelling’s (1931) article “The economics of exhaustible resources”. Katundu (1998) explained that Hotelling’s (1931) article demonstrated environmental degradation and the mitigation measures for environmental problems. However, one could argue that Katundu’s (1998) point of view was limited since sustainability entails more than just environmental issues as it is shown later in this chapter. Another scholar Blutstein (2003) recognized Sir Macfarlane Burnet as the pioneer of the concepts of “sustainability” and “sustainable development”. Blutstein (2003: 339) argued that Sir Macfarlane Burnet developed a conceptual framework of sustainable development in the 1966 Boyer lecture where he addressed the topic of “...genetics and ability of humans to reach their

true potential”. Blutstein (2003: 339) went further to reveal Sir Macfarlane Burnet’s definition of sustainability which stated that: “The resources of the Earth must be maintained for the use and enjoyment of future generations in a measure no less than we now enjoy”. A closer look at the definition reveals a resemblance of the definition of sustainable development to that which was provided by the Brundtland Commission which will be provided later in this section. The researcher is of the opinion that a further study on the history of sustainability could be conducted to research the historical background of sustainability concept. However, the important thing noted from the scholars Katundu (1998) and Blutstein (2003) is the fact that both acknowledged that Brundtland Commission on Environment and Development publicized the concept of sustainability world wide.

Therefore, in the context of this study the history of the concept of sustainability will be presented following sustainability landmarks such as: the Stockholm Declaration, the Sustainable Society Conference convened by the World Council of Churches, the Rio Earth Summit and the Johannesburg World Summit for Sustainable Development. Chibambo (2003) and Dresner (2002) also addressed the historical background of the concept of sustainability starting from early 1970s when the Stockholm Conference on the Human Environment took place. Specifically Dresner (2002) pointed to the United Nations Conference on the Human Environment in Stockholm in 1972 and the Conference of Science and Technology for Human Development organized by the World Council of Churches (WCC) in 1974 as the starting point of debates on sustainability or sustainable development. The major focus of the Stockholm Conference was poverty in developing countries (Dresner 2002: 28). The Conference also addressed the issue of global environmental degradation that led to the signing of Stockholm Declaration on Human Environment (Australian Government Department of the Environment and Heritage 2004). One could argue that the Stockholm Conference made environmental issues part of a formal global agenda. The formalization of environmental issues in a global agenda could be demonstrated by the establishment of the United Nations Environmental Programme (UNEP) which was one of the results of the Stockholm Conference which was chaired by the Canadian, Maurice Strong.

In 1974 the WCC convened a meeting to discuss sustainable society (Dresner 2002; Hallman 2002). According to Cauthen (1998) and Hallman (2002) the WCC meeting was a response to Club of Rome’s (1972) report “The limit to Growth” which predicted a global catastrophe if steps were not taken to save environmental resources. Specifically, the WCC gathering

addressed the issues of equitable distribution and democratic participation in environmental resources and decisions (Dresner 2002: 29).

Hallman (2002) pointed out that the WCC meeting raised the issues of:

...just and moral economy where: a) people are empowered to fully participate in making decisions that affect their lives, b) public and private institutions and enterprises are accountable and held responsible for the social and environmental impacts and consequences of their operations, and c) the earth and whole created order is nurtured with utmost respect and reverence rather than exploited and degraded.

Dresner (2002: 31) noted that sustainable development emerged in the World Conservation Strategy Paper of 1980, published by the International Union for Conservation of Nature (IUCN) which addressed the synergetic relationship surrounding sustainability and conservation. The main problem after the inception of the concept was its definition. The concept was defined differently by diverse individuals, professionals, and institutions. Tryzna (1995: 23), for instance, found at least 70 definitions of “sustainable development”. To stem the proliferation of sustainable development definitions, the United Nations General Assembly’s World Commission on Environment and Development (WCED), which was chaired by Gro Harlem Brundtland, reviewed debates on sustainable development definitions and came up with the most cited definition of sustainable development. The Brundtland Commission defined sustainable development as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987: 43).

Even though the definition of the Brundtland Commission is the most recognized definition of sustainable development, it has frequently been criticized by many scholars. For example, Dresner (2002: 31) commented that the Brundtland definition of sustainable development is “simple and vague”. This means that it has strength due to its simplicity in understanding and it is weak since it has more than one meaning. It is not the intention of this study or this literature review to enter into the debate on defining “sustainability” or “sustainable development” but rather to point out different views of the concept and arrive at an acceptable definition of the concept for the purpose of the study.

Probably another way of arriving at an acceptable definition of sustainable development is by demonstrating lack of sustainability. In this case unsustainable development could easily be

demonstrated by the abuse of human resources in organizations (Adib *et al.* 2002), increased child labour world wide (Admassie 2003), the problems of industrial waste in societies (Gursch 2004), gender inequalities in organizations (Tisdell 2002), and industrial accidents such as the Bhopal gas tragedy (where over 2500 people were killed), the Piper Alpha Oil platform fire of 1988 that killed 167 people, the Zeebrugge Ferry disaster of 1987 that claimed 167 lives, and the Phillips Petroleum accident of 1989 which killed 23 people (Gupta 2002:1).

The discovery of the Antarctic hole in the ozone layer confirmed the environmental hypothesis raised in various environmental conferences and discussions (Dresner 2002: 36). One could argue that, since the revelation of the ozone hole, environmental considerations gained an enormous political support from different stakeholders. With the threat of the Antarctic Ozone Hole and to implement the Brundtland Commission's proposal the United Nations convened an Earth Summit in Rio de Janeiro, Brazil 1992 (Australian Government Department of the Environment and Heritage 2004; Dresner 2002; Hallman 2002). The major focus of the conference was environment and development. Specifically, the conference agreed on the following global issues: Agenda 21, a biodiversity convention, a climate change convention, and a declaration on forest principles (Dresner 2002:38).

In the Rio Summit the framework for a climate change convention which asked for 60% reduction of carbon dioxide world wide was signed and negotiations for the Kyoto Protocol started (UNEP 2004a; Dresner 2002:41). Furthermore, the Rio Summit established a biological diversity convention and Agenda 21 for participation, open government, human health, information for decision-making, sustainable agriculture and the role of the market, trade and business in realizing sustainable development (UNEP 2004b). The Rio Declaration established 27 principles (UNEP 2004b). The principles with a direct relation to this study are: the first principle, that human beings are the centre of sustainable development, and that they are entitled to a healthy and productive life in harmony with nature; the fourth principle on environmental protection as an integral part of any development process; the fifteenth principle on the precautions and the sixteenth principle which argued for polluters to pay (UNEP 2004b).

In summary, the Stockholm Conference and the Rio Summit built the foundation for the Johannesburg World Summit for Sustainable Development. The Stockholm Conference

recognized environmental deterioration as a major problem and the Rio Summit added the issue of development. The issue of environment and development were put together in the Johannesburg Summit.

To address the issue of unsustainable production and consumption and the implementation of Agenda 21, the Commission on Sustainable Development was created. The Commission on Sustainable Development was later renamed the World Business Council for Sustainable Development (WBCSD), which is among the GRI steering committee members (Hussey, Kirsop and Meissen 2001:15). Drawing from the theory of Total Quality Management (TQM), the WBCSD argued for organization efficiency and new business approaches towards environmental protection.

The most important thing in relation to the Johannesburg Summit and sustainability reporting is the fact that the new version of the GRI was launched in September 2002 at this World Summit. It is also important to note that the emergence of the WBCSD played an important role in pushing to the fore the sustainability reporting agenda at the Johannesburg World Summit. It could also be argued that the WBCSD involvement in the GRI steering committee was strategic for lobbying and stimulating business reporting participation.

### **3.1.2 Corporate sustainability**

It is widely recognized that the world's environmental deterioration is linked to certain patterns of production and consumption. Thus, in order to realize the goal of sustainability, the involvement of business in the process is crucial. To substantiate the importance of business involvement in the sustainability process, Barret (1998: 5) in World Resource Institute (1999), argued, "business is on the front line in making sustainable development a reality". In addition, it was noted that the corporate sustainability goals were: meeting societal demands, reducing costs and liabilities by using cleaner processes and efficient technologies, achieving customer loyalty due to product stewardship in the entire product life cycle and accelerating revenue growth for environmentally and socially sound products and services (Arnold and Robert 1998: 20). The following discussion presents the environmental, social and economic pillars of sustainability.

On environmental issues, the World Resource Institute (1999: 4) stated that “no firm can be exempt from the obligation to evaluate its contribution to environmental risks and to participate in the transformation to a more sustainable industrial system”. In this case industries need to make sure that their operations, development and survival do not increase waste, pollution and general environmental degradation. Sustainability in this case could be achieved through the use of cleaner production technologies that increase efficiency and reduce waste generation, and through the use of renewable resources in industrial sectors.

Stakeholder involvement in business operations stimulates the achievements of social goals in the sustainability process. On the importance of stakeholders' involvement the World Resource Institute (1999: 4) pointed out that “...it is very risky for a company to neglect its relationships with its stakeholders or escape the need to be part of building a better society”. The stakeholders who typically call for responsible companies are governments, shareholders, customers, employees, local communities, NGOs and labour unions. The WBCSD (1998: 9) supported the World Resource Institute by arguing: “it is a misconception to portray business as something divorced from the wider community”. In other words, one could argue that a business needs to be accepted in its community in order to operate.

Additionally, social inequities are directly linked to unsustainable corporate operations. For example, the EEA (1999) reported that the richest few in the world consume almost 86% of the world's resources and produce 53% of the world's carbon dioxide emissions (one of the special agents for climate change), while the poorest consume 1.3% and emit 3% of carbon dioxide (EEA 1999: 24). Such low a level of emissions contributes little to climate change. The low level of pollution produced by developing countries does not mean that such countries should not play their part in combating emissions and pollution problems in the world. Since multinational corporations are increasingly being established in many developing countries for various reasons, including the availability of cheap labour and raw materials, the need for sustainable operations in these countries is of paramount importance.

The economic issues in the development of sustainability reflect the global perspective of corporate operations. One could reflect that some unsustainable corporate operations have local effects but others have global effects. The World Resource Institute (1999:27) stressed that “...no global company can ignore the economic dynamism and huge potential of



emerging markets, nor the need to contribute in a broad way to the development of these regions”.

Generally, contributions to the well-being of society around the operations area foster good relationships and a competitive advantage for companies. Recognizing the importance of a holistic approach in addressing sustainability and specifically the power of businesses to achieve sustainable development, Harry, cited in WRI (1999: 27), maintained that:

We are all responsible for this planet, but business must take the lead because only business has the global reach, the innovative capability, the capital and most importantly, the market motivation to develop the technologies that will allow the world to truly achieve sustainable development.

In order to achieve corporate sustainability it was recommended that companies should use knowledge and information to increase resource efficiency and establish a clear connection with communities to gain trust and create sustainable markets for their products and services (Arnold and Robert 1998). How could the information and knowledge be used to achieve corporate sustainability? This question raises the issue of sustainability reporting as part of corporate information systems.

### **3.1.3 Barriers to corporate sustainability**

Regardless of arguments in favour of corporate sustainability, there are some barriers to implementing corporate sustainability. For example, Filho (2000: 14) argued that the abstract nature of the term “sustainability” causes difficulty in its implementation. Another barrier to sustainability is the lack of skilled human resources to implement sustainable development. Moreover, in most cases the resources needed to implement corporate sustainability do not justify the investment in corporate sustainability. Finally, the sustainability concept lacks scientific foundation (Filho 2000). However, while noting the above barriers, the high level of response to sustainability reporting world wide, allows one to argue that the barriers to sustainability are too weak to restrict the market forces in favour of sustainability and sustainability reporting. Thus sustainability reporting is addressed in the following sections.

### 3.1.4 Sustainability reporting

A recent study by Hedberg (2002) indicated that sustainability reporting emerged in the early 1990s when companies started producing environmental reports due to various environmental pressures such as the world summit on environment and development in Rio de Janeiro that demanded ethical corporate environmental behaviour. Then the Sustainable Development Summit in Johannesburg witnessed the inauguration of the GRI guidelines. The sustainability reporting initiative is also supported by the United Nations, through the involvement of the WBCSD in the GRI steering committee (Dresner 2002:46). The findings of the Hedberg (2002) study showed that sustainability reporting or Triple Bottom Line reporting is an important tool for making sustainable development aspects visible at the corporate level and it gives an important hint about the necessity for internal corporate information collection. He further noted that due to the lack of standardization, the reports are very difficult to compare. Hoffman (2000) cited in Hedberg (2002) pointed out that the obstacle to environmental reporting is difficulty in getting companies' environmental data. However, looking at it from a records management perspective, the problem faced by the previous studies in comparing sustainability reporting and difficulties of allocating corporate environmental data are probably due to the absence of records keeping systems in the reporting organisations.

Broadly speaking, corporate sustainability reporting falls into the general scope of a corporate information system. Therefore, in order to have reliable and accurate sustainability reports there is a need to first address the question of corporate record keeping. Surprisingly, corporate social responsibility researchers, when researching sustainability reporting, put emphasis on the sustainability reports only, leaving out the first step in the sustainability reporting process, that is, records management. An example of neglecting the internal record keeping system when designing or comparing sustainability reports is the sustainability reporting system of Volvo Penta which was designed by Hanna Roberts (1998). In her report Roberts (1998: 37) revealed that the design of corporate sustainability reporting is simply answering the following basic questions:

- Who are the relevant stakeholder groups to which the company showed the report?
- What does the company hope to achieve by reporting?
- What do the stakeholders want/need to know?
- How could the message be delivered in the best way?

- When should we communicate?
- Which channel should be used for communicating?

Roberts' (1998) questions are relevant to the larger concerns around sustainability reporting. But one needs to ask where the information with which to report to these stakeholders comes from? Doubtless the answer to this question would be from a corporate records management system. Therefore, Roberts' (1998) questions are relevant if and only if the proper records management system is in place. Probably the fact that Volvo Penta, using Roberts' (1998) design, produced sustainability reports which were found to be difficult to compare empirically (Hedberg 2002), demonstrates the neglect of corporate records management as a focal point in the sustainability reporting system. The researcher is of the opinion that the best way to start sustainability reporting is to set up a proper internal corporate records management system and later answer Roberts' (1998) questions of who needs what information, which media to use to reach them, how, and what the company is going to achieve. The following section discusses the triggers for sustainability reporting.

#### **3.1.4.1 Drivers for sustainability reporting**

According to Taylor-Gee (1999: 21) business drivers for sustainability reporting emanate from pressures from supranational organizations, the influence of globalisation, the growth in stakeholder involvement, the increased transparency of company operations and the shift of business values. In the case of supranational organizations, the United Nations Rio Conference for example, put an emphasis on incorporating environmental issues, society's well-being and community health into business operations. The Rio Conference also raised ethical questions for businesses that led to sustainability reporting.

The pressure of world economies towards globalisation also raises the issue of quality of products and services in the market. Businesses all over the world are striving for competitive advantage through accountability and responsibility for their operations. In other words, globalisation is acting as an incentive for corporations to report their actions regarding sustainable development (Gray, Owen and Adams 1996: 128). According to Grayson (1999: 21) the transactions of multinational companies now account for one third of global trade. The increased international trade and multinational companies' operations sometimes are connected to the dumping of polluting technologies from developed countries on less

developed countries. Therefore, one of the ways to clear allegations of transferring polluting and dirty technologies to other countries is for companies to report their sustainability status. Another driver for sustainability reporting is the emergence of stakeholders' involvement. A number of stakeholders demand sustainability reports before making decisions. According to Taylor-Gee (1999: 23) business stakeholders such as consumers, employees, investors, lenders, academia, trade unions, NGOs, communities, regulators and policy makers are increasingly putting pressure on companies to actively demonstrate the control of environmental and social risks, and improve their performance and ethical behaviour. Taylor-Gee (1999: 23) further noted that:

Stakeholders' dialogue sessions, feedback forms on company documentation, consultations with communities and a general openness to public are common traits of a leading corporation in today's climate.

To meet stakeholders' demands for dialogue and companies' accountability, the companies are pushed to publish sustainability reports to communicate their environmental, social and economic performance to internal and external stakeholders.

Furthermore, the concern about issues of freedom of information and freedom of expression has led to an increased demand for transparency from different areas including company operations. Demand for increased transparency is another driver for corporate sustainability reporting. For example, Elkington (1997: 24) cited in Taylor-Gee (1999), revealed that the campaign regarding human rights issues in Nigeria led Shell to conduct a sustainability roundtable discussion on their operations worldwide involving academia, the media, NGOs, government representatives, and senior business figures. This initiative led to a significant change in Shell's approach, as Shell is now working towards sustainable development. In other words, companies are in the spotlight, their operations are visible and their actions are subject to public scrutiny. Depending on the companies' operations towards sustainable development their reputation could be enhanced or destroyed by negative reports.

Another important driver for sustainability reporting is the issue of a value shift. The Seoul Declaration on Environmental Ethics (1997) reported in Taylor-Gee (1999: 25) observed that: "the current global environmental crisis is a result of value systems, driven by human greed and excessive materialism". With global environmental campaigns supported by global environmental sustainable development summits and environment related conventions, companies are shifting their values from being only profit oriented to being more

environmentally, economically and socially responsible. This is also suggested by the emergence of new management tools such as a sustainability balance scorecard. According to Bourne and Bourne (2000: 12) a balance scorecard is a framework that considers tangible assets and intangible assets of the companies while focusing on financial perspectives, customer perspectives, internal perspectives and innovation and learning perspectives.

To address sustainability issues, environmental experts are promoting at company level the implementation of sustainability balance scorecards. The sustainability balance scorecard together with the four perspectives of normal balance scorecard also takes into consideration the sustainability issues in the financial, customer, internal process and innovation and learning perspectives. The sustainability balance scorecard also allows the additional perspective of sustainability issues in the corporate strategy map (Figge *et al.* 2002). All these additional foci reflect a shift in corporate values from traditional finance and profit orientation to a balanced view. The value shift to a balanced view is logical due to the fact that corporate finances are improved by good customer relationships. A good customer relationship is achieved if the internal processes in the company and employees' relationships are enhanced. The internal processes are managed well if the dynamics of the changing customer values, tests and competition are accommodated in the innovation and learning of the company. Finally, none of the sustainability balance scorecard perspectives could operate if the environment is degrading and communities do not support their operations.

Other drivers for sustainability reporting according to Rowledge, Barton and Brady (1999:45), are increasing customer demand, competitive pressures, stringent regulatory requirements, new business opportunities and sometimes genuine caring. In the case of regulations in the European Union (EU) for instance, there are strict regulations for motor car scrap handling that require a take back (EU Extended Producer Responsibility (EPR) guideline), waste handling, reduction of noise, emission standards, recycling, reuse and material energy recovery. The EU also has designed its own strict environmental management system known as Eco-Management and Audit Scheme (EMAS). The EMAS, in addition to all the ISO 14001 requirements, requires companies to report all the company sustainability aspects (Brorson and Gösta 1999). Some countries in Europe such as France and Denmark also have regulations in place for corporate sustainability reporting. On the other hand, Roberts (1998: 37) reported that some companies publish their sustainability reports in a structured way, to communicate that they are following guidelines in order to

gain credibility from the public. With the sustainability reporting drivers above, companies reported differently. However, the GRI provided a guideline to normalize the differences in corporate sustainability reporting. The following section deals with the GRI.

#### **3.1.4.2 The global reporting initiative**

It is widely recognized that the GRI is the most comprehensive and generally acceptable guideline for sustainability reporting worldwide (Hedberg and Malmberg 2003; Hussey, Kirsop and Meissen 2001). According to the WCED (1987) cited in Hedberg (2002), the GRI is environmental reporting based on sustainable development. The GRI was started in 1997 by the Coalition for Environmentally Responsible Economies (CERES) in collaboration with the Tellus Institute. The Tellus Institute is a US based NGO dealing with research on and promotion of environmental stewardship and equitable development (Tellus Institute 2004). Thereafter, the UNEP also became a key partner of the GRI. The GRI's main objective was to develop a globally acceptable framework for sustainability reporting that would include environmental issues, economic issues and social aspects of the organisations in order to harmonise sustainability reporting internationally (Hedberg and Malmberg 2003: 155; Wood 2003). The main reason for starting the GRI was the fact that no global guidelines existed, and that caused difficulties in comparing reports from different companies. The third version of the GRI guideline was released on 3 September 2002. The first version came out in 1999 and the second version in 2000 (Wood 2003).

Reporting on the organizational structure of the GRI, Wood (2003) noted that in the year 1998 the GRI formed a steering committee to guide the implementation of GRI policies and general GRI directions. The GRI organization consists of representation from various companies, NGOs and the UNEP. The stakeholders' council examines the layout and contents of the guideline. In order to ensure that their goal of continuous improvement is achieved, the GRI has established a list of Structured Feedback Companies (SFC) to provide the guideline with continuous feedback (Wood 2003).

The GRI steering committee which comprised 17 organizations and seven countries designed the structure of the GRI's permanent institution that was approved on 21 June 2002 (Wood 2003). The steering committee guides the GRI and includes business, environmental, and scientific groups such as the Association of Chartered Certified Accountants (UK), the

Coalition for Environmentally Responsible Economies (USA), SustainAbility, Ltd. (UK), the UNEP (Kenya), the WBCSD (Switzerland), and World Resources Institute (USA).

Hussey, Kirsop and Meissen (2001: 15) reported that the GRI is now an independent body and is an official collaborating centre of the UNEP. The GRI is registered as a non-profit foundation and its headquarters are in Amsterdam, the Netherlands. Wood (2003: 60) noted that the organization has 16 members on the board of directors. The board of directors has legal and financial powers over the GRI. The Board's work is taken care of by a secretariat under the leadership of a chief of executives. The funding of the GRI comes from charitable foundations. The goal of the GRI in the long run, is to sustain itself financially through subscription, contribution from companies reporting under the guidelines, contributions from major accounting firms, companies offering assurance of the use of the guideline and public sectors such as government, international financial institutions, regulatory bodies and foundations (Wood 2003).

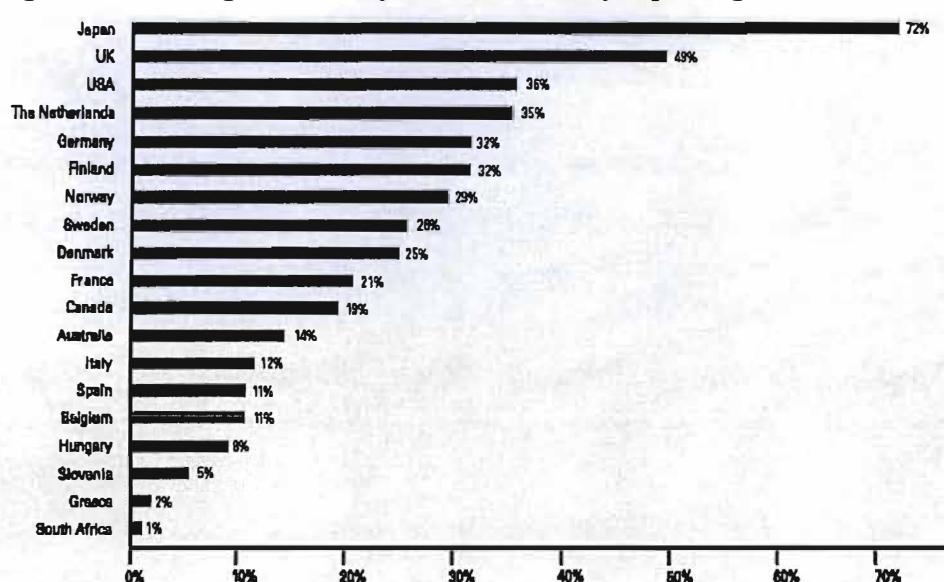
Generally, the GRI draws its information from and bases its information on international conventions such as the long-range Transboundary Air Pollution Convention that generated several protocols such as the Helsinki, Sofia and Geneva Protocols. In general, the convention's main agenda is to address the issue of cooperation at an international level in order to solve transboundary air pollution problems. Another convention that contributes to the GRI is the Fundamental Human Rights Convention of International Labour Organization (ILO) (GRI 2002). GRI also relies on the Kyoto Protocol on issue about climate change. The GRI relies heavily on the precautionary principle, the Rotterdam Convention on Prior Informed Consent (PIC), the Montreal Protocol for substances that deplete the Ozone layer, the Stockholm Persistent Organic Pollutants (POPs) Convention, which deals with the protection of humans and the environment from persistent organic pollutants and the WRI-WBCSD Greenhouse Gas Protocol, which is mainly a measurement protocol (GRI 2002).

#### **3.1.4.3 Current global sustainability reporting status**

The number of organizations producing sustainability reports continues to increase, particularly among large companies. To substantiate the increasing trend of sustainability reporting, KPMG has been conducting a worldwide survey every three years of organizations

that publish corporate sustainability reports. The most recent KPMG report in 2002 found that 45% of the world's top 250 companies published sustainability reports as opposed to only 35% that published sustainability reports in 1999 (KPMG 2002). Further, it was noted that of the top 100 companies in each 19 countries surveyed, Japan had the highest percentage of companies producing sustainability reports (72%), followed by the UK (49%), USA (36%), Netherlands (35%), Germany (32%), Finland (32%), Norway (29%), Sweden (26%), Denmark (25%), France (21%), with South Africa the only African country represented in the study ranked last (1%) (KPMG 2002). For an overview of the survey results see the figure below:

**Figure 3: KPMG global survey for sustainability reporting trends worldwide**



Source: KPMG (2002)

The newly released September 2002 GRI guidelines provide indicators for economic performance, environmental performance and social performance. However, the guidelines acknowledge that so far the highest consensus is reached in the dimension of environmental performance indicators (GRI 2002). In other words, the economic and social performance indicators, though they are detailed in the GRI guidelines, are still in the development stage. The GRI guidelines are voluntary initiatives that companies may use and recently they have been urged to verify their sustainability reports by third parties to increase the credibility of reported information (GRI 2002).



#### 3.1.4.4 Sustainability reporting principles and indicators

As noted elsewhere in this chapter, companies can report in different ways, however, the GRI guidelines are the most widely accepted guidelines for reporting at present. According to the GRI (2002) in order for a company to have a reasonable balance of information regarding economic, environmental, and social performance in a sustainability report, the report needs to adhere to eleven principles. These principles are divided into four categories. The first group of principles provides a framework on how to report. These principles are transparency, inclusiveness, and auditability. The second group entails principles that inform decisions about what information is to be reported. These are the principle of completeness, the principle of relevance and the principle of sustainability context. The third group of principles involves information on the quality or reliability of reported information. These principles are the principle of accuracy, the principle of neutrality and the principle of comparability. The last group of principles informs the accessibility of reported information. These principles are the principle of clarity and the principle of timeliness (GRI 2002). In this case one would think the third group of principles, which deals with the quality or reliability of reported information would address corporate records management. However, the principle of comparability in this group could not only be used to compare different sustainability reports as of now, but could also compare reported information and recorded information.

On the other hand, these principles provide only a guide or a framework for sustainability reporting in the organization, but not a guide to the internal process of designing corporate records and data management systems or a guide to the process of preparing the report or monitoring and verifying sustainability reports. This fact is also acknowledged by the GRI (2002) when describing the strength and limitations of guidelines. To substantiate the importance of developing an information management system, in this case corporate records management system, Africa Merlin-Tao Visser (2002: 82) argued that:

...putting in place the robust internal systems necessary for producing an external verified sustainability report can serve as a significant positive catalyst for overall improved management of non-financial issues.

The corporate sustainability reporting that adheres to the GRI guidelines needs to indicate economic performance, environmental performance, and social performance in the reports using GRI established indicators. In the case of economic indicators the GRI (2002) itself

states that the economic horizon of the GRI deals with all the economic issues of organizations. For example, the sustainability report could provide information on negative and positive impacts of economic interactions of the company and its stakeholders.

The GRI further noted that economic performance in the GRI guideline means more than the traditional financial statements. The economic performance in sustainability reporting entails the intangible assets that take economic indicators beyond the traditional financial indicators. For example, the GRI requires that companies report intangible assets such as employees' motivation and customer satisfaction. Broadly, the tangible assets to be reported are the company's wealth distribution to employees, to the government, to the suppliers, to investors, to shareholders, and to customers (Owen 2002:8). The records generated in this section are sales records, customers' records, contents and quality of products records, salaries and remuneration records, human resource records, tax records, training records, research and development records and responsible investments records. For GRI indicators and the corresponding records see Table 2.

With regard to environmental aspects of sustainability reporting, the GRI (2002) advocated that the environmental dimension involves the disclosure of an organization's impact on living and non-living things. Furthermore, the GRI guidelines urge a combination of absolute figures and normalized measures in order to simplify the process of comparing different companies' environmental performances. In the environment of sustainability reports all the issues relating to health, safety and the environment in general are included. Owen (2002: 8) listed materials, energy, water, land use/biodiversity, emissions, effluents and waste, transport, suppliers, products and services, and compliance and remediation activities as major aspects to be reported in the environmental category of sustainability reports.

In the case of social performance, the GRI (2002) stressed the importance of including in sustainability reports all the aspects related to social systems where the organization operates. The company needs to report its compliancy with equal opportunities, safe and healthy working environment, fair wages, provisions against child labour and forced labour, human rights and the rule of law. For the overall picture of sustainability performance indicators and probable records series see Table 2 below. An exhaustive list of sustainability indicators could be accessed at the GRI (2002) website presented in the reference list of this study.

**Table 2: Overview of sustainability performance indicators and records created**

SUSTAINABILITY INDICATORS	RECORDS
<b>Environmental indicators</b>	
Energy	Energy related records (bills, units used etc)
Emissions, effluents and wastes	Emissions records and composition records
Transport	Fuel records, emission records, transport costs records
Suppliers	Suppliers records
Products and services	Production records and end of life records of products and services
Materials	Material balance records
Water	Water bills records, waste water records
Land use/biodiversity	Land use records, biodiversity records, chemical use records
Compliance	Environmental regulations records, policies and procedure records, environmental and sustainability meeting records
<b>Economic indicators</b>	
Profits and expenditure	Profit and loss accounts records, books of accounts, budgets records
Tangible and intangible assets	Assets records
Wages and benefits	Salaries and workers' benefits records
Labour productivity	Productivity per labour records and macro-productivity records
Taxes	Various tax records
Products and services	The contribution of product and service to the economy records
Suppliers	The distribution of economy between suppliers and producers records
Community development	Contribution to community development records
Investment	Return on investment records
<b>Social indicators</b>	
Human rights	Human rights at work related records
Workplace conditions	Working environment records, employees appraisal records, list of employees, gender issues, staff development records, reward records, training records
Suppliers	Social contribution from suppliers records
Products and services	Records of contribution of products and service to the social well-being

**Source:** Adapted from the GRI (2002) guidelines and converted to records series.

Broadly, as can be seen from Table 2 and an analysis of corporate sustainability reporting, the process increases the amount of records and information generated in the companies. The

sustainability sections above have revealed possible sustainability related records and issues, which were investigated in this study.

### **3.1.5 Linking sustainability reporting and corporate records management**

The process of sustainability reporting starts with recording sustainability related information, selecting information from records to be included in the sustainability reports and publishing the sustainability reports. The sustainability related records created in the organizations are evidence of all the sustainability activities undertaken in the organization. These sustainability records are particularly useful during the sustainability auditing or sustainability third part verification process. The verification process is now regarded as being essential these days to guarantee trustworthiness of the reports. According to Environmental Australia (2003), independent verification of Triple Bottom Line (TBL) reports or sustainability reports is “increasingly sought by organizations to provide assurance to stakeholders.” On the other hand, Hussey, Kirsop and Meissen (2001: 19) concluded that: “third party verification adds little value or credibility unless there is an agreed upon standard for reporting, and unless the certification agency is trusted”. Their conclusion was based on recent corporate scandals, such as Enron scandal (*Citizen Work* 2003), which revealed the way corporations lie in their reports. To react to this, one could argue strongly for a corporate records management system, which provides information for a sustainability reporting system. The corporate records management system would be used by third party verifiers as a benchmark to compare the sustainability reported information and sustainability recorded information.

In the verification process verifiers cross-examine as to whether environmental, social and economic information reported in the sustainability reports is consistent with corporate records created during the conduct of sustainability related activities (Environmental Australia 2003). It is therefore important to ensure appropriate corporate records management systems in the organization exist firstly to simplify the extraction of information from records for sustainability reporting and secondly to facilitate the verification process, which is very important to legitimize the sustainability reports. The following discussion covers issues of records management theoretical frameworks.

### **3.2 Theoretical foundations of the study**

This section presents analysis of the theoretical framework which guided this study. The theoretical foundation of this study is based on the modified records life cycle theory. Records life cycle and record continuum models are the dominant, well known theories in the archival and records management field. Jackson (1983) in Shepherd and Yeo (2003: 8) revealed another less popular records management theory that is “Record entity life history”. The following is an analysis of the three records management theories and the presentation of the modified records life cycle theory, which guided this study.

#### **3.2.1 Records life cycle**

Records life cycle is the core concept in the field of records management. To use Yusof and Chell’s (2000: 135) words, “It is invariably used in records management textbooks and widely accepted by professionals in the field.” They further noted that records life cycle provides a framework for effective management of records. According to Akussah (1996: 101), “It is now universally acceptable among archivist and records management professionals that the cycle concept is the most integrated and comprehensive approach to record management”.

Historically, the inventor of life cycle concept was Theodore Schellenberg in the National Archives of the USA in the 1930s (Shepherd and Yeo 2003:5; Yusof and Chell 2000: 135). The life cycle concept, the dominant theory for paper based records, perceives records as living organisms. From this perspective, the concept propounds that records have a clearly defined life from birth to death (Akussah 1996; Chinyemba 2002; Kalumuna 2000; Kennedy and Schauder 1999; Mnjama 1996b; Ndibalema 2001; Penn, Pennix and Coulson 1994; Shepherd and Yeo 2003). In their life, records pass through various stages. Different scholars present stages through which records pass differently. A comprehensive presentation of the different stages follows.

Roper (1977), Hardcastle (1989), Charman (1984) and Hare and McLeod (1997) shared the view that records life cycle has three stages. These stages include: the current stage where records are active; the semi current stage when records are required infrequently for current business; and the non-current stage when records are inactive and are no longer required for

current business. Penn, Pennix and Coulson's (1994: 17-18) text book also shares the same three stages: active, semi active and non active.

Smith (1986) and the Advisory Committee for the Coordination of Information Systems (ACCIS) (1990) expanded the records life cycle to four stages. These are: the creation period; the active and frequent use period; the semi-active and archival use; and the obsolete and destroying stages. Saffady (1998: 12-13) and Diamond (1995: 1) supports the four stages of records life cycle but differentiated some of the wording. Their four stages include: creation; active use and maintenance; inactive and storage; and destruction

Ricks, Swafford and Gow (1992); Gill (1993) and Robek, Brown and Stephens (1996) stimulated the debate on the stages of records life cycle when they revealed that there are five stages of records life cycle. Gill (1993: 4) for instance provided the following stages: creation; use; active storage retention; transfer; and disposal. Along the same lines, Robek, Brown and Stephens (1996: 7) listed the following stages: creation stage; distribution and use stage; storage and maintenance stage; retention and disposition stage; and archival preservation stage.

Other writers provide more stages of records life cycle by looking at information contained in the records and not records themselves. For example, Schwartz and Hernon (1993) state that records must undergo six stages that start from collection and/or creation of both electronic and paper based information. These stages are: creation and collection; production; protection; distribution or dissemination; retrieval, access and use; and retirement in the archives or destroying them.

Scholars Wallace, Lee and Schubert (1992: 4) provided a number of records life cycle stages which extends beyond those presented above. They posed that there are seven stages of records life cycle. These stages are: records creation; records distribution; records utilization; records storage in an active state; records transfer; records storage in non active state; and records disposition or permanent storage.

In the same debate Edith Cowan University (1993) analysed the records life cycle into eight stages, which are: records creation; distribution; utilization; active storage; transfer; inactive storage; and disposition to permanent storage. Goodman (1994) concluded the debate by

suggesting that there are ten records life cycle stages: These stages, according to Goodman, are: design and creation of records; identification; authorisation; verification; validation and auditing; circulation; access; loan and use; backup procedures and disaster recovery plans; and retention schedules and destruction.

Upon a closer look into these records life cycle stages, it is evident that records life cycle is a concept and not a compartmentalization of records' life into distinct space and time. Records life cycle is a concept that provides useful information and structure for an effective and efficient records management program. To substantiate this claim, Penn, Pennix and Coulson (1994: 12) asserted that records life cycle is a theory which provides a framework for the operation of a records management programme.

Based on the fact that the records life cycle is a concept, it can be argued that the acceptable stages of records life cycle are active stage, a semi-active stage and an inactive stage or current, semi-current and non-current. The terms active and current, semi-active and semi-current and inactive and non-n current are used interchangeably in this study. Broadly, the representation of the life cycle concept can be linear or in the form of a loop cycle (Shepherd and Yeo 2003:5). What is involved in these stages of records life cycle follows:

In the current phase records are created or received and stored and maintained in their original place for immediate administrative use (Shepherd and Yeo 2003:5). There are several activities in the creation and capture of records, represented in section 3.3.11. The maintenance and use of records for easy accessibility is presented in the section 3.3.12. In the semi-current phase records are used rarely. In this phase records are stored on site or in records centres off site awaiting decisions as to their disposal (Shepherd and Yeo 2003:5). In this stage activities involved are transferring records to the records centres or intermediate storage areas in order to create more space and increase efficiency in accessing active records. The inactive stage in the record life cycle represents records that have finished their active life and are no longer needed for current administrative issues (Shepherd and Yeo 2003:5). Some of the records in the non-current stage are declared archives and are transferred to a permanent storage site and some are declared non-archive records and are destroyed systematically (Yusof and Chell 2000).

The three phases of the record life cycle described above are basic to all records and records need to be managed in the entire life cycle (Mnjama 1996b). From the above records life cycle analysis it is evident and reasonable to argue that the life cycle concept does not represent compartments that indicate distinct space and time in managing records. Therefore records life cycle remains a concept which can be used to organize and structure a proper records management program.

### **3.2.2 Records continuum**

The heated debate on the stages of records life cycle and the perception that records life cycle stages present a distinct space and time motivated some scholars to suggest an alternative theory on records management. Some argued that the life cycle compartmentalization and differences in its interpretations makes it unsuitable for an electronic records management environment. Yusof and Chell (2000: 140) argued that:

Differences in the interpretation of the record's life cycle indicate that records management, the discipline governing record matters, is evolving. Advances in technology suggest that the management of records in the traditional environment is no longer suitable for records in electronic formats, which have their distinct characteristics.

Some scholars in the field of records management argued for an alternative model to suit electronically generated records. Flynn (2001), Upward (2000) and Yusof and Chell (2000) claimed that the continuum model is suitable for the management of electronic records. Their main reason for arguing for the continuum model is the inclusion of a record keeping design stage in the records continuum model. In advocating the use of records continuum Barry (1994: 251-6) pointed out that

Documents in a distributed electronic environment are dynamic and recursive in nature and may exist in more than one stage of the life cycle simultaneously. They may not follow a serial path from creation to disposal but may be re appraised at the disposition time and reappear in an earlier stage

Barry's (1994) view point is in line with space and time (life cycle concept) and the space-time (continuum theory) metaphor provided by Upward (2000). The main argument for Upward's (2000) metaphor is the dynamic nature of electronic records and the participatory system design requirements in an electronic environment. However, a closer look into records



life cycle stages provided by Goodman (1994: 134-135), show that there is an appreciation of designing a records system before creation of records.

In critiquing the life cycle model Shepherd and Yeo (2003: 7) argued that since some records never die, the stages in the life cycle concept are artificial, and repetition of stages is not accommodated in the life cycle concept. McKemmish (1997) cited in Shepherd and Yeo (2003: 7) argued against the separation of archives and records management professions due to the compartmentalized life cycle approach. Some scholars argue that records continuum extends the boundaries of the archival profession and combines it with records management. For instance McKemmish, Reed & Piggott (2005) in McKemmish *et al.* (2005: 193) asserted that

Our traditional theory and practice has been derived from a physical world where archiving processes tended to apply only in custodial archival keeping-places. Australian archival practice in the 'series' system broke that physical nexus, and subsequent evolution of practice within the records continuum framework has extended the boundaries of archival systems...

Historically, the emergence of records continuum theory started when Australian Ian MacLean declared that "...records managers were true archivists, and that archival science should be directed towards the study of the characteristics of recorded information, recordkeeping systems and classification processes" (Upward 2000:118). The Canadian archivist Jay Atherton was the first person to propose the word *Continuum* be used to describe MacLean's approach in Australia. Atherton was also the first person to show how records continuum differs from record life cycle (Upward 2000). The Canadian invention of the records continuum was later adopted by Australia [Frank Upward, Sue McKemmish, Barbara Reed and Don Schauder] as an alternative to the records life cycle to address the needs of electronic records (Chinyemba 2002:36). Specifically, the record continuum model was developed in the 1980s and 1990s (Shepherd and Yeo 2003:9) to address the claimed gaps in the records life cycle model. The Standards Association of Australia (1996) in Kennedy and Schauder (1999: 10) defined records continuum as

...a consistent and coherent regime of management processes from the time of the creation of records (and before creation, in the design of records keeping systems), through to the preservation and use of records as archives.

In the continuum model, the records management process is regarded as a continuous activity that focuses on the operations that produce records (Bantin 2002: 69).

Based on the continuum model, archivists and records managers need to be involved together with information systems designers in the design of record keeping systems. The stage of designing the system is termed the “pre-natal phase in the life cycle of a record” (Flynn 2001). Record managers and archivists should also appraise the records when designing the system with information systems experts. The collaborative system design between records managers and information systems experts is advocated by many authors such as Erlandsson (1996), Roper (1993) and Shepherd and Yeo (2003). Kennedy and Schauder (1999: 10) provided the following questions to be answered by the collaborating team: What records need to be captured and maintained? How long should the records be kept to meet business and other requirements? How should they be stored? Who should have access to them? Kennedy and Schauder (1999: 11) further noted that since, in the electronic environment, records are created or received and stored in different environments and conditions, the needs and requirements of the record keeping system should be anticipated by records managers or archivists. The anticipated needs should be incorporated into the system.

In most cases it is important to define terms for contextual understanding of any phenomenon. Surprisingly in the case of records continuum model Upward (2005: 204) argued that

Defining the terms used in the model would be counter-productive to its purpose, except when one is using the model to look at how it relates to specific recordkeeping occurrences and activities.

However, according to Kennedy and Schauder (1999: 12) the continuum model comprises the following four dimensions. In the first dimension records are created or received in the organization. In the second dimension metadata are added to the records and important information on how the records link to other records is added. In the third dimension records with preserved recordness are taken back to normal storage and retrieval system. In this case, the system could be the normal corporate information system. In the last dimension the records that are needed for archival services are channelled to archives systems.

The main emphasis in the records continuum model is the participatory design whereby archivists or records managers and systems designers participate in the designing of the

X system. The model is also based on the realization that records continue to live after the non-current phase of the record life cycle. The life of records after the non-current phase is evident in electronic records, since during the disposal of electronic records what is deleted is the memory address of that record and not the record itself. In support of the participatory approach, one could also argue that without the participation of archivists or records managers in the system design, records would disappear in the subsystems due to lack of records management and archival knowledge on the part of information systems designers and corporate computer experts. Collaborative design by records professionals and information systems experts would ensure the proper capturing of records in the network environment and at individual workstations. If records management professionals are not involved in the design phase, records might not be captured in the system, particularly records from private workstations.

However, it is important to use the records continuum theory with caution as indicated by Upward (2000: 116) himself when he argued that "For other practitioners and educators, however, its relevance is not immediately perceived. In face-to-face discussion with those who have been perplexed all I have ever been able to do is shrug my shoulders." Shrugging shoulders may mean a lot to communication experts. The researcher is of the opinion that Upward's (2000) shoulder shrugging implies his uncertainty with regard to the records continuum theory.

The major difference put forward by Upward (2000) and Upward (2005) is the space and time argument of traditional records life cycle theory and space-time argument for continuum theory. The researcher does not agree with this interpretation since records life cycle stages are a concept and not compartments. The record life cycle model focuses on the physical entity and movements and non-current custodian tasks, while electronic records are logic based and not physically based (Shepherd and Yeo 2003: 7). The main concern with records life cycle theory is physical separation of records and the separation of archives and records management professions (McKemmish (1997) in Shepherd and Yeo (2003)). In other words, McKemmish (1997) in Shepherd and Yeo (2003) argues for a combined archival administration and records management profession. It is surprising for a practitioner of McKemmish's calibre not to appreciate the fact that all archives are records and not all records are archives. Therefore, the marriage between archival administration and records management was there from the inception of the records management profession. It is not a

new phenomenon. As pointed out earlier, the records life cycle is just a concept to ensure structured and effective records management. The physical separation of space and time advocated by Australian theorists is simply not there. The researcher is of the opinion that the relative criticisms of records life cycle are too weak to substantiate the acceptance and use of continuum theory of records management in this study.

The researcher however, agrees with Upward (2000: 125) that

From a teaching point of view, and within practical analysis, it is the relational and self-defining nature of the model that makes it useful in opening up such debates, not closing them before they begin.

Therefore Upward (2000) and his colleagues must be applauded for opening up a debate. To prove the cautious use of records continuum, Upward (2000:127) declared the biased nature of the continuum theory when he strongly argued that “We fit our detailed knowledge into ways that are agreeable to our communities of practice. There is certainly a cultural component to Australian use of the word continuum.” Therefore with these cautions in mind and the researcher’s appreciation of prenatal stage of record continuum theory the study blended prenatal stage of records continuum with the records life cycle concept. The main reason of blending records continuum prenatal stage and the records life cycle stages is to acknowledge the on going debate of the records continuum model proposed by Upward (2000) and the fact that participatory system design is a very important aspect for a proper system design.

### **3.2.3 Records entity life history**

According to Jackson (1983) in Shepherd and Yeo (2003:8), the “records entity life history” is another possible alternative to the records life cycle model to address the issue of electronic records management. This concept propounds that records have a life history, which is built on sequence, iterations and selection of objects and actions. The concept pictures a record’s environment in a hierarchical structure. For instance, the relationship of father and children explains the model. In this case a father (main node) creates or receives children (records). The captured records can be managed through maintaining, using or destroying them. To advocate the use of this model Shepherd and Yeo (2003: 8) claimed that the “model is valid for all records, whether paper or electronic”. However, due to the limited information available to the researcher the model is not discussed further here.

### **3.2.4 The modified records life cycle theory**

Based on the discussion above it is evident that the record life cycle and record continuum models, which currently dominate the field of archival and records management, have many points in common. The major difference however is the prenatal stage in the record continuum and the inclusion of appraisal activities in the pre-natal stage in the system design. The differences and similarities of models are not so important in this study due to their philosophical relativity. However, the most important point to remember is "...records need to be managed from the start to the end of their existence" (Chinyemba 2002: 36). Because this study took place in a technologically backward area (Iringa region, Tanzania), it was important to consider a grounded records life cycle theory as a basis of this study. However, since it is evident from a participatory design view point that a prenatal stage of records continuum model is an important aspect in both records management systems designs and sustainability reporting systems designs, the study blended the prenatal stage of records continuum and all stages of records life cycle theory to answer this study's research questions.

The blended theory that guided this study is called a modified records life cycle theory. The attributes of the modified records life cycle theory are the pre-natal phase of the continuum model, the current phase of the life cycle model, the semi-current phase of life cycle theory and the inactive phase of the life cycle model. Based on the above discussion of records management theories, the following section discusses records management in general.

### **3.3 Corporate records management: an overview**

According to Shepherd and Yeo (2003: 2) records can be defined as "recorded evidence of an activity". Yusof and Chell (1999: 1) reported that all organizational activities regardless of the organization size create records. It was also noted that any transaction within or outside the organization, which involves two parties, creates records that are evidence of a completed transaction (Shepherd and Yeo 2003: 2). For efficient and cost effectiveness of records management processes there is a need to manage records in a proper records management system.

The management of business records is not a new phenomenon. The history of business records management in general goes back to ancient times when people kept records for future use. For example Walsh (1998:1) observed that archaeologists found the first systematic business transaction records on clay tablets and tokens in the Tigris-Euphrates River Valley, in Iraq. He further noted that these business records were more than 8000 years old. However, records management as a discipline of study was developed in the 20<sup>th</sup> century from office efficiency programmes and archives management (Shepherd and Yeo 2003:1). Robek, Brown and Stephens (1996: 25) went further to indicate that the exact period of the 1940s and 1950s was when formal records management as a professional and business practice started. Robek, Brown and Stephens (1996: 20) specified that the archivist Mr. Emmett J. Leahy was the founder of records management as a professional field of study.

Leahy was appointed by Harry Truman, the then president of the United States of America, to chair a task force of paper work under the Hoover Commission. The purpose of the Hoover Commission which was appointed by President Truman and chaired by the former US president, Herbert Hoover, was to make every US government department function efficiently and to organize all the executive branches of the government (Truman-Library 2004). The Hoover Commission was heavily involved in the first attempt to define records management. The Hoover Commission provided various sponsorships to define records management. Leahy was also the founder of the US National Records Management Council, which played an important role in disseminating the records management message to the business community. In its first ten years the Council supported more than forty companies in implementing records management systems (Robek, Brown and Stephens 1996: 20).

Penn, Pennix and Coulson (1994) and Shepherd and Yeo (2003) stated that records management entails the management of the entire record life cycle regardless of its age, to meet its purposes in both the private and public sectors. During the appraisal process some records are transferred to archives and some are not; thus, not all records are archives while all archives are records, therefore, one could concur with Penn, Pennix and Coulson (1994) and Shepherd and Yeo (2003) that records management encompasses the entire life cycle of the records, while archives administration covers the last stage of the record life cycle. In other words, records management as a field of study involves the management of records and archives.

The ISO 15489 (2001) and Shepherd and Yeo (2003: 1) defined records management as the “field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records...”. Drawing from the above definition the basic functions of a records management system are to capture, create, maintain, facilitate retrieval and dispose of or permanently preserve records. According to Senn (1989:16), cited in Shepherd and Yeo (2003), a system is “a set of components that interact to accomplish some purpose”. A records management system can therefore be defined as “a unified set of resources, responsibilities, procedures and equipment designed to maintain and provide access to records with the records management programme”(Shepherd and Yeo 2003:23).

For evidential purposes the content, context and structure of the records need to be captured (Shepherd and Yeo 2003: 1; Mutiti 2001: 57). The content, structure and context constitute the recordness of a record. In order to protect the records from loss or damage and to ensure the evidential trustworthiness, usability and smooth accessibility of the information from records, the content of metadata need to be captured (Shepherd and Yeo 2003: 23; Mutiti 2001: 57). Metadata are the essential information about the records, especially electronic records in order to meet evidential, legal and operational purposes (Mutiti 2001: 57).

With the overall view of the records management system above, it can be argued that the burning issue in the records management field is the management of hybrid records management systems. It can also be pointed out that the main reason for giving a high priority to hybrid systems is the growing acceptance of the simultaneous use of electronic based records and paper based records. In other words, there is a high probability of organizations continuing to generate paper based records at increasing rates due to technological advancement, such as highly sophisticated photocopiers and printers. These new technologies also increase the generation of electronic records and paper records due to their advantages such as records access speed and less use of physical storage space. To address the challenge of managing electronic records and paper based records concurrently, Shepherd and Yeo (2003: 28) concluded the first chapter of their book this way “...an effective record management programme should cover records in all media, electronic as well as paper...”.

Other authors such as Ngulube (2002: 123) also acknowledged the value of hybrid systems in the records management field when he argued that “The hybrid approach will make it possible for those readers who find microfilms awkward and unpleasant to work with to have access to digital information”. On the other hand, he asked for urgent research in two areas: first, research addressing the issue of the costs of implementing electronic systems for managing and preserving records, and second, research on electronic data formats like SGML, XML and PDF to ascertain their suitability for electronic records management systems. This study therefore, will be informed by the hybrid system in managing records and the issues pertaining to both paper based and electronic based records are addressed. The following section details the essential characteristics of effective records.

### **3.3.1 Essential characteristics of effective records**

Since records are increasingly produced electronically due to the recent proliferation of information technologies (Mutiti 2001: 57), records need to be assessed for their quality, authenticity, integrity, usability and reliability. According to Shepherd and Yeo (2003:11), the authenticity of records, implies the intactness of records. The usability implies the accessibility to authorized users. They further noted that in order to achieve the quality of accuracy and reliability, records must be created and maintained in a very systematic way. If records are maintained and managed in a systematic manner the probability is high of facilitating companies’ actions efficiently with less cost. It is also a fact that records that are managed systematically allow proper scrutiny of the conduct of business by auditors or any other user. Records that are properly managed also protect the financial, legal and other rights of the company, its customers and anyone else affected by its operations. Penn, Pennix and Coulson (1994) argued for the maintenance of records integrity and quality. Additionally, they argued that for records to play an evidential role and to be a reliable source of information, records must maintain contents, structure and context. A detailed discussion of contents, structure and context follows.

#### **3.3.1.1 Contents**

According to Shepherd and Yeo (2003: 11) the contents of the records should be correct and everything significant to the activities in question should be recorded. For the maintenance of record contents, the best practices and procedures of records management need to be



followed. The best practices and procedures of records management are enhanced by well-planned records management systems. In an electronic environment the data integrity needs to be maintained in order to ensure that:

- The identity of a records creator is verified
- Permission to read and modify or write files is restricted
- System audits are conducted periodically
- Data error checking and correction are included in the data transmission
- The backup of data is done regularly and
- Data in offline media such as magnetic tapes, floppy disks, write once optical disks, re-writable optical disks and others are regularly refreshed to avoid handling problems (Saffady 1998:19).

Data in an electronic environment need to be encoded in such a manner that the records continue to be readable and provide the same contents in their entire life. Open standards systems with contextual modification are probably the best tools for long-term retention of textual records, content maintenance and metadata preservation. For example, one could consider using an open system such as the American Standards Code for Information Interchange (ASCII), Open Systems Interconnection (OSI), Tag Image File Format (TIFF) for a non-texture materials, and Joint Photographic Expert Group (JPEG) or Graphics Interchange Format (GIF) for images (Erlandsson 1996; Abbot 1999).

### **3.3.1.2 Structure**

In the case of the structure of records, Shepherd and Yeo (2003: 11) stated that a records system must reflect the relationship between constituent parts. The structure of records forms a link between contents and context. Structure organizes the content in such a way to denote the context of the records, which contributes to the understanding of the records. In an electronic environment where different software can be used to display the same records it is very difficult to maintain the structure of the records. However, one could argue that in the electronic environment it is important to have a simple record structure in order to simplify the preservation of records structure over time. Additionally, though the researcher concurs with Ngulube (2002: 128) that more research is needed on the issue of open standards to preserve records, one could argue that the standard such as Standard Generalized Mark-up Language (SGML) and Extensible Mark-up Language (XML) can still be used to maintain

record structure with precautions until these open standards are proved by research to be unsuitable for electronic records structure preservation.

### **3.3.1.3 Context**

With regard to the context of the records, Harris (1996: 7) reported that “Records have meaning within the contextual circumstances of their creation and contemporary use”. Therefore, the conditions and environment present when creating or using records need to be captured in the records management system for evidential reasons. Shepherd and Yeo (2003: 10) also maintained Harris’ (1996) point of view when they noted that records must be supported by information about the circumstances in which the records were created and used. In other words, the evidential value of the records diminishes if the records are separated from information on the environment in which the records were created. The environment referred to in this case is the creator, the department or persons who created the records, the time when the records were created, the place where the records were created and the reasons for creating the records (Gilliland-Swetland 2000).

The depth of the contextual information needed depends on the users, uses and the value of the records. One could argue in this case that the higher the evidential value of the records the more contextual information needed. Additionally, the records that qualify for permanent storage also need more contextual information since the context or the environment of creating and using records today may not be obvious to future users of the records.

Many scholars recognize the existence of records in an electronic environment and the need of contextual information for electronic records. For instance, Abbot (1999) and Erlandsson (1996) illustrated the loss of contextual information on electronic records due to technological obsolescence. In agreement with them, Ngulube (2002: 122) gave the example of obsolete punched cards, and five quarter floppy disks, which could not be used with the current software and hardware in the market. However, one could point out that the most important requirements for providing context for records in the electronic environment are the documentation of the record keeping system design, proper data dictionaries and other related business documentations. Alternatively, it could also be argued that electronic records can be transformed into paper based records as Computer Print Outs (CPO) and use the existing knowledge of managing paper based records management systems. For context

problem by discussing the benefits of records management and the consequences of not managing records properly. The purpose, together with the objectives of the study, follows the definition of the problem. The chapter also presents the research questions answered by the study. Next, the chapter presents the significance of the study. The operational definitions of terms are also included in this chapter. The methodology used and assumptions of the study are also presented. Finally, the chapter presents the organization of the study.

### **1.1 Rationale of the study**

Among the common denominators for all companies in the world is the production of records and information (Yusof and Chell 1999:228). However, for some time records management in organizations such as companies have not been given reasonable support from top management (Mnjama 2000:70). Records management was not a priority for many businesses due to the fact that it was not perceived as contributing directly to corporate services (Sebina 2001:58). The world now witnesses the increasing environmental and sustainability awareness of consumers that is pressuring companies to certify their products with quality standards or environmental management systems in order to continue doing business while getting support from all stakeholders. Mnjama (2000:70) provided a typical example of quality and environmental pressures when revealed the quality pressures and customer satisfaction requirements that were to be met by Botswana Meat Commission (BMC) to continue selling in the Western markets. The demand of international markets nowadays is for products and services certification with International Standards Organization (ISO) such as ISO 9000 for quality or ISO 14001 for environmental management systems. For instance, Sebina (2001:49) pointed out that "...there is no way [Botswana Meat Commission] BMC could have resisted ISO 9000 certification if it was to continue being a player in the world beef industry."

Almost all the ISO series standards that deal with quality standards such as the ISO 9000 series or environmental management systems such as the ISO 14001 and the Eco-Management and Audit Scheme (EMAS) require records to be created during the design of the product, production processes, and distribution and use stages of the product. Most of these standards also require the records to be tracked when needed. There are many records that are created during the certification process, for instance the large amount of evidence in the form of paper and electronic evidence which are created during initial review and environmental auditing. To prove the importance of recording and reporting information, the

preservation metadata need to be added when transferring electronic records to paper based systems or microfilms. Metadata information could comprise names, author, work group, organization, and also records could be designated as drafts or final copies (Gilliland-Swetland 2000). The metadata information could also link the records with other information objects.

### **3.3.2 Drivers for corporate records management**

It is obvious that records, as an important source of information, are required to support business decisions. There are several drivers for corporate records management, and Kearton (2004) provided the following major drivers for corporate records management: legislative drivers, regulatory drivers and business drivers. The Danish Green account is one of the legislative drivers. The Danish Green account consists of legislation, which requires companies to prepare green or environmental accounts in Denmark. This is a legal obligation and the Danish community expects companies to fulfil all the requirements of the report. Danish EPA (2004: 1) defined the Green account as “A mandatory environmental report accounting for the physical flows of pollutants and resource efficiency through information about use of raw materials and waste generation”. One of the most important requirements in the Green account is the environmental data or records, which must include energy, water, raw materials consumption, dust, noise, odour, waste production, waste handling and volume of pollutants. Kearton (2004) argued that the compliance with most of the environmental information regulations is similar to the compliance with freedom of information acts since they give individuals the right to request information. In this case environmental records management facilitates the retrieval of environmental information to be supplied to the requestors.

In the case of regulatory drivers, Kearton (2004) argued that business efficiency regulations require compliance with financial regulations and with audit requirements. Records management in this case supplies information for auditing purposes and ensures business compliance with the regulations. For example, in the European Union if the company implements an environmental management system using the EMAS, the company is asked to comply with the records management requirements of the system. According to Robek, Brown and Stephens (1996: 10) some countries require records to be maintained for a certain period of time, particularly when a company produces sensitive products that might have

negative effects in future. In line with the above reasons is the issue of minimizing litigation risks. The records could also play an important part when a company is producing products that have some possibilities of failing, therefore the company would need records to support its defence in the case of lawsuits and to minimize risks to both its customers and itself.

In the case of the business drivers, Robek, Brown and Stephens (1996: 8) revealed that the first reason is to control the creation and growth of the records. This is because the larger the quantity of records the more difficult their retrieval and occupation of space. The control of the records will help the organization to avoid unnecessary duplication of the records.

Another driver maintained by Kearton (2004) is the improvement of the use of staff time which is spent looking for information. With a proper records management system information is retrieved quickly and reliably. Kearton (2004) also reported a consultancy firm's JISC infonet which estimated that 10% of the administrative staff's time was spent on retrieving information. Another estimate quoted by Kearton is from Imoff which argued that if the information is managed properly, it could save an individual half an hour a day. Robek, Brown and Stephens (1996: 9) suggested that if time is saved then there is the probability of improving organizational efficiency and productivity. They also suggested that in order to save more time organizations could invest in computers and automate the indexes for quick information retrieval.

Robek, Brown and Stephens (1996: 9) also reported the reduction of operation costs as another driver for corporate records management. They further reported that in the USA, the cost of maintaining one linear inch of records in the business office is about \$10 to \$25 per year. Therefore, by controlling the generation of unnecessary records the records management system saves money in terms of records carrier media, shelves and space. The records management system could also save some costs if the inactive records were transferred to low cost storage places. It is important to note here that the benefits of records management systems are case specific; the amount spent in the USA for a linear inch of records might not be the same as the amount spent on the same amount of records in Tanzania, Kenya or Uganda.

Furthermore, Kearton (2004) maintained that records management facilitates the sharing of information and better decision-making. In this case the driver is to use collective memory,

which could easily be accessed through records management and be used to avoid misuse of organizational resources.

Another driver is to safeguard vital records of businesses. The existence of businesses depends on availability of vital records. The mismanagement or disappearance of vital records is likely to jeopardize the existence of the business itself. Therefore, by safeguarding vital records, one is practising proper risk management to support business continuity (Kearton 2004).

Finally, businesses can invest in records management to foster professionalism in running their businesses. The image of a company sometimes is seen in the way the company arranges its resources, including records. The neatness of the arrangement of resources creates a good working environment and therefore creates the possibility of raising employee morale and good external image (Robek, Brown and Stephens 1996: 11). Also, due to difficulties in accessing electronic records over a long period of time, records management is needed in the organization to identify how long the records need to be kept (Kearton 2004). The driver in this case is the long-term access of electronic records and other forms of records.

### **3.3.3 Barriers to business records management**

According to Robek, Brown and Stephens (1996: 15) there are also some good reasons why businesses do not place any priority on records management. The major reason is the fact that records management programmes do not generate income (hard cash) in the company. Records management is always regarded as an administrative issue and not a core activity of the business organization that brings money into the organization. Since records management programmes in businesses are administrative it is also difficult to justify investment and to calculate the return on investment (ROI) from a records management programme since many benefits are intangible. Katuu (2000: 34) listed the costs involved in managing electronic records which are the cost of consultancies to set up the systems (outsourced or insourced), the cost of technology such as workstations, servers, cabling and storage media, the cost of maintaining and upgrading the system and the cost incurred due to technology dependency. Since most businesses are for profit these costs might act as a barrier to setting up a corporate records management system.

Furthermore, since business organizations can operate without a records management programme, records management is regarded as minor business and sometimes the top management in the business regards records management issues as a problem in the organization, particularly when records management activities have to compete with other major or moneymaking units in the organization (Robek, Brown and Stephens 1996: 15). However, with sustainability reporting the records management system adds value to the organization's market, since its credibility relies on the verifiers who actually go through recorded information on process, procedures and activities related to corporate sustainable development.

#### **3.3.4 Status of record management in organizations**

Robek, Brown and Stephens (1996:22) predicted that the future of records management would be characterized by a doubling of records every five years and the records management "...organization will evolve from fragmented to coordinated to integrated information management". They also observed an increase of records by 7% to 10% each year and the increasing rate of generation of electronic records. The predicted doubling of records and the percentage of increase mentioned by Robek, Brown and Stephens (1996) is due to the changes in the information environment and the advancement of information processing technologies. For example, a study by Chachage (2001a: 226) mentioned various changes that have occurred due to the proliferation of information technologies particularly computers and the Internet. Nawe (2000: 24) also indicated the revolutionary nature of the development of information technology development and the challenges faced by the information industry worldwide and Tanzania in particular.

Therefore with the new technologies in the information industry and records management, in particular, the current debates about records management is on managing electronic records, the changes of archival theories and principles to adapt to these new technologies and pressures of citizen's right to know. For example, Bilotto and Guercio (2003: 136) stated that "electronic records in the form of dynamic databases or web materials are the latest and not yet solved challenges". They further acknowledged that IT challenges in the records management field go beyond the archival and the records management fields; thus "the role

of archivists is becoming more crucial, especially in the updating of old principles to the increasing [challenges of information technologies]”.

Another aspect of the current records management debate is the management of private records in paper form and electronic formats. For example, the *Records Management Journal* volume 13 issue 3 of 2003 was entirely dedicated to the subject of corporate private records. There are several important private records management issues raised by contributors to the above Journal. For instance, Bilotto and Guercio (2003: 136) pointed out the increasing relevance of archival and record management theories and principles at corporate level where these principles and theories are neglected. Hughes (2003: 117) stated that the increased corporate products market share and the need of competitive advantage were the driving forces for adaptation of records management principles and theories to the private sectors. Roos (2003: 147) emphasized the importance of business archives associations in fostering records management in the private sector. He reviewed the purpose and achievements of the Finnish Business Archives Association that led to the development of records management in the private sector in Finland.

Furthermore, the consumer's right to know and its impact on records management is another current and debatable issue. Mnjama (2000) argued that “All citizens have the right of access to information, each citizen is entitled to enjoy certain rights that must be protected and must be enshrined in the freedom of information legislation.” He went further to point out that citizens are becoming more aware of their right to access information and demanding greater accountability, transparency and good governance. In addition, Guttman (1998) revealed that the US has an Emergency Planning and Community Right to Know Act (EPCRA) to encourage public participation in environmental protection. The EPCRA act as an incentive for US companies to protect the environment and involve US citizens in environmental protection dialogues. Another US initiative in relation to the right to know debate is the provision of Toxics Release Inventory (TRI) and Sector Facility Indexing Project (SFIP) (Guttman 1998). These initiatives urge companies to reduce emissions by reporting and profiling companies based on their major facilities' environmental problems. The intention of the right to know debate is to provide more information to the public and to encourage citizen participations in the environmental and sustainability decision making.



In summary, the advancement and revolution in information technology, the benefits and costs associated with new technologically generated records, the challenges of updating old archival principles and the theories to cope with new inventions, gaining market niche and acquiring competitive advantage using records management, and the general management of private records are some of the research and debate questions for the field of archival and records management. These issues have been raised by Bilotto and Guercio (2003), Hughes (2003), Katuu (2000) and Nawe (2000) within the last four years.

### **3.3.5 Training of records management personnel**

To manage records according to the records life cycle, record continuum theory or the combination of the two as adopted by this study, it is essential for records personnel to be trained. According to Yusof and Chell (1998: 25) “education and training are essential elements in the life long development of skills and expertise.” Also emphasizing the importance of training, Wamukoya (2000) stressed the need for relevant informal and formal training for records personnel. He further specified workshops, seminars, conferences, public lectures, exhibitions, community projects and outreach programmes as being part of the training programmes to be considered.

Ngulube (2001/2002) argued against holding records personnel accountable when they are not trained, due to the fact that they are not capable of managing records or preserving records and archives. To use Ngulube’s (2001/2002: 32) words “there would be no justification for blaming untrained people for failing to [manage records] since they would not have been empowered to do so”. He also stressed in the same article the need to customize the training based on the specific needs of records management skills. Mazikana (1998) also indicated the importance of training in records and information management.

Additionally, Shepherd (1998:32) indicated the importance of collaboration in training to exchange experience and training materials and methods. Shepherd (1998) gave an example of an exchange programme between the University College of London and the University of Ghana Legon in the area of records and information management. Yusof and Chell (1998: 25) remarked that even if various types of training are vital for updating knowledge and skills for records personnel and prospective record personnel, qualified and well informed records management professionals depend on the education and training provided by universities.

### **3.3.7 Record keeping systems**

According to Abbott (1999: 7) record keeping systems are used to manage current records. In the same vein Erlandsson (1996: 27) pointed out that:

Record keeping systems in electronic, as well as in the paper world are designed for the use of operational staff in current office operations, and not for or by archivists or for the external researchers.

Erlandsson (1996) went further to differentiate between information systems and record keeping systems. The most important thing to note in the record keeping system is the fact that organizations need to have a record keeping system that captures records and incorporates the captured records in the overall corporate records management system or corporate information system. With regard to electronic record keeping it was noted that the “major objectives of electronic record keeping systems shall be to manage the content, context and structure of the records as a whole and to ensure that records are reliable and authentic” (Australian Archives 1995 cited by Abbott 1999: 21).

### **3.3.8 Managing electronic records and paper records**

As noted elsewhere in this chapter, the proliferation of computers in business organizations is increasing at a reasonably high rate. In other words, many records in organizations with computer installations are created electronically. For example, Bearman (1996:1) in Abbott (1999: 7) concluded that, “...within the next decade, almost all organizational records created in our society will be made and communicated electronically”. The electronic communication predicted by Bearman (1996) is already happening particularly regarding sustainability reporting. Companies have computers and office network installations and they communicate their sustainability status online. For example, writing on the benefits of online sustainability reporting Shepherd, Abkowitz and Cohen (2001: 309) pointed out that:

Internet reporting has some obvious benefits. It can save money on the cost of printing, make the information available to a broader audience, allow for a provision of immediate updates of information, facilitate a dialog between stakeholders and company, and enable quick retrieval of information.

Scott and Jackson (2002), when reporting some of the best practices in sustainability reporting on the web, claimed that Internet reporting improves access to information and

offers unlimited quantity of information. Scott and Jackson's (2002) position on the quantity of Internet information could be positive and negative at the same time. The negative side of putting large amount of information on the Internet is the slowness in accessing Internet based information. Nevertheless, the availability of information in large quantities and varieties, if professionally accessed and properly used, facilitates informed decisions.

The advent of automation and the use of computers in private business organizations and web based reporting practices creates a tremendous amount of records. All the computerized activities and the web based publishing of sustainability reports create records that are supposed to be captured in the records management system. In this case the websites also could be used as evidence to compare against the recorded information. However, the company can just overwrite the previous year's website without keeping records to facilitate the comparison of the different years' performances. It is important therefore, to note that the recordness of websites also needs to be captured in the records management system together with other sustainability corporate records. There are many reasons for managing and preserving electronic information; for instance Lor and Snyman (2004) provided business reasons such as the management of finance, operations, and strategic planning. They also highlighted legal reasons and heritage reasons for managing and preserving electronic documents. In the context of this study electronic records must be managed and preserved for verification purposes as noted in the barriers to business records management. Private companies need to establish records management systems in order to provide useful information in a reasonable amount of time to verifiers.

According to Abbott (1999: 10) some private sector organizations have shown initiatives to face the challenge of managing electronic records by establishing effective electronic records systems. He substantiated his claims by pointing out the Umgeni Water Authority in KwaZulu-Natal, South Africa as an example of a private organization with a proper system to manage electronic records. However, he further noted that many private organizations do not have electronic records management programmes. This is probably the case in most African countries, including Tanzania.

### **3.3.9 Challenges of electronic records management**

For paper based records, the record life cycle model has influenced the management of content and the metadata of records for a very long time, as discussed in section 3.3.1. The paper based records are simply captured in their medium, which is paper. However, in the case of the electronic environment, records are virtual and can only be accessed, seen and read through the support of hardware and software (Abbott 1999:8). Hardware and software dependency brings the first challenge of managing electronic records, namely, technological dependence. The second challenge is technological obsolescence (Ngulube 2002). Fast technological change leads to difficulties in software and hardware compatibility for records that were created using outdated technologies. O'Shea (1996:2) cited in Abbott (1999: 8) stated that:

The rapidity of technological change and the instability of the media have meant that traditional approaches to archives and records management, where they have been tried, have not been satisfactory for the long-term preservation of electronic records.

Abbott (1999: 8) noted that if a record is migrated to another medium such as hardware and software there is a possibility of that record being separated from its structure and context. Additionally, the virtual characteristic of electronic records provides difficulties in managing records using traditional ways of managing physical records. The virtual attribute of electronic records is one of the challenging problems to archivists and records managers when attempting to preserve and manage electronic records (Hedstrom and Blouin 1996:1 in Abbott 1999:9). Ngulube (2001a:3) acknowledged the challenges set by electronic records mentioned above. Most interestingly, he cited Cain and Thurston (1996) for a real life example of the challenge of obsolescence of hardware and software, when the Salary Service Bureau of the Zimbabwean government lost salaries and pension information stored in computer readable media due to "old/new" computer compatibility problems. On the other hand, one could argue that those are just challenges and probably with time, further research as Ngulube himself (2002:128) recommended, and the use of XML, SGML and PDF, these challenges might be met. On facing the challenges that emanate from the advent of computers Cook (1994) in Erlandsson (1996: 13) asserted:

...Archivists [and records managers] can no longer afford to be, nor to be perceived to be, custodians in an electronic world. We must stop being custodians

of things and start being purveyors of concepts. We must stop serving, in the first instance, and start directing; stop rowing and start steering. We must get off the daily treadmill and start realizing that the supply of records, or evidence of actions and transactions and of their animating processes and function, gives us unique power. We must stop fearing that the new age of increasing demands, ever more records to manage, difficult computer records to cope with, even shrinking resources-that all these spell hopeless gloom and start believing that traditional archival principles and theories, transformed into the corporate setting of the records creator and appropriately reconceptualized for an electronic world, may hold the key to prospering in the new environment we face. We must in short, embrace with enthusiasm our context-based or provenance based legacy, to which we have too often paid lip service only, and transform it from physical and structure centered mind set to one that is conceptual and process centered.

To react to the above quotation, first of all it is important to note that doubtless, Cook is one of the leading authorities in the field of archival and records management. Perhaps the most important words to note in the above quotation are: “We must...” and transformation of “mind set” in the last sentence. One could point out that the certainty of statements starting with “We must ...” means that professional archivists and records managers have the capability of managing records and what is needed is to do it fearlessly. In the “conceptual and process centered” mind set transformation one could argue that looking at the holistic nature of an information scientist and particularly the grounded archival and library science probably the solutions to electronic records management are outside the newly invented technologies. The researcher therefore, is of the opinion that the combination of traditional archival and records theories and principles could possibly solve the problems of electronic records management without wasting a lot of time in finding technological solutions. The methods and procedures for combining the traditional archival and records management principles are addressed in the model proposed in this study. The next section deals with records creation and capture.

### **3.3.10           Records creation and capture**

In order for records to preserve evidential value, they need to be created and captured in a very systematic manner. Many authors have written about creating and capturing records.

For example, in a hybrid environment for private corporations, Kennedy and Schauder (1999:91) suggested the need for an effective and systematic way of capturing records. To capture full and accurate records in the organization there is need to control the volume of information in the media and the size of the media. It is also important to standardize the records presentation in order to retain the structure of the records. Kennedy and Schauder (1999) further suggested the general rule for registering, classifying and indexing, and linking records created or received to other related records in the same series and storing in a place and media that would ensure their long-term preservation.

To control the size of the records created and minimize the cost of creating unnecessary records and of records accumulation Leyzorek (1991) emphasized the need for the proper design of forms and templates. In the context of proper design the Public Record Office (1999:15) addressed the need for clear, specific procedures and policies in the organization on, among others, the type of the document to be created and the point of capturing the records. In addition to a collaborative understanding of the organizational procedures and policies for creating and capturing records, Kennedy and Schauder (1999:107) argued for compliance with existing regulations, adequateness for the purpose, completeness and meaningfulness, comprehensiveness, accurateness, authenticity and inviolateness of records created and captured. Leyzorek (1991), Penn *et al.* (1989) and Kennedy and Schauder (1999) spoke of designing forms and templates to standardize the records created in the organization.

The Public Record Office (1999:15) stressed the importance of forms and templates to control cost and increase efficiency by pointing out the nature of the electronic work environment or open system environment where records are created or received internally or externally by many people in the organization through e-mails, personal computers, Local Area Network (LAN), Wide Area Networks (WAN), Intranet, Extranet and Internet. In the open system environment it is pertinent for the company or any organization to structure and standardize the forms and templates for consistency.

With computers and the computer network environment in organizations, websites and e-mail contribute significantly to the amount of records created, particularly in businesses where many transactions take place online. Kennedy and Schauder (1999:99) and the Public Record Office (1999) repeatedly noted the challenges of managing e-mails and websites records. According to the Public Record Office (1999:16) due to the information linking capabilities

of the Internet and websites, a successful management of the Internet and websites generated records requires boundaries to be drawn in order to capture complete records. With regard to e-mails, Kennedy and Schauder (1999: 106) noted the difficulties of capturing e-mail in the corporate records management system due to the fact that sometimes e-mails are regarded as personal, confidential and informal. One could argue that the solution for e-mail capture and website capture in the corporate records management system depends on the establishment of well-stipulated and collaborative corporate records management policy and procedures. The collaborative policy could cover the kind of e-mails to be captured, the boundaries of websites to be captured and the type of metadata information to be added and how they should be captured and stored.

According to the Public Record Office (1999: 20), the capturing of electronic records in general could be automated by the use of document management systems (DMS). Generally, the DMS have default options for end users selection and sometimes the system provides options to insert information manually. In order to capture a website as a record, a generic, standard, accepted metadata specification is provided by Dublin Core Initiative (DCI) (Gilliland-Swetland 2000). The metadata information needs to be attached with the record or filed separately with a link to the record. If the records are transferred to a new system the metadata information also needs to be with the records. The metadata information for a website and e-mail, according to Public Record Office (1999: 24), includes the title of the record, authorship, keywords, date of creation and modification for document profile and access rights, retention schedule and disposal criteria for context, history and the location of the record.

The DCI has provided a comprehensive and up to date list of the metadata information for electronic records. To support the DCI Lassila and Swick (1999) suggested the use of the Dublin Core resource description framework inside the website Hyper Text Mark-up Language (HTML) code. To finalize the creation and capture of records, Public Record Office (1999: 28) advised organizations to capture files and/or folders that keep metadata information in the record keeping system. The next section is devoted to metadata systems.

### 3.3.11 Metadata systems

According to Milstead and Feldman (1999) and Hillman (2000) “metadata is data about data”. The term “meta” comes from a Greek word, which means something of a higher or more fundamental nature (Hillman 2000). In other words one could argue that metadata is the same as descriptive information in the library card catalogue. Hillman (2000) stated that a “metadata record consists of a set of attributes, or elements, necessary to describe the resource in question”. Since the recordness of a record is in the content, structure and context of the records, these aspects need to be preserved in order to maintain evidential, informational and historical values of the records. To quote Erlandsson’s (1996: 22) words: “...the content must be preserved with its metadata –data about data”. Since records in the electronic form do not occupy the same physical space as paper based records, it is important to apply both perspectives in developing a hybrid system. In paper based records, the content and metadata are all captured in the same paper media and the preservation of recordness of records is easier. In the electronic form, the record contents and metadata are stored separately and it is challenging to capture the full recordness of records in the electronic environment.

In order to meet this challenge Erlandsson (1996: 22) suggested corroborative systems design methods among archivists or records managers and information systems designers and administrators in order to incorporate records capture and management requirements in the system from the system design stage. To substantiate the need for collaboration between archivists and records managers and information system designers in order to capture the recordness of the records from the design stage, Wallace (1993) cited in Erlandsson (1996: 22) argued that:

The provision for the creation and capture of accurate and comprehensive metadata in the system design stage provides the archival community with an operative strategy for capturing the crucial contextual information that provides an understanding of electronic records and recordkeeping systems in which they reside.

Obviously, the collaborative approach will change most of the practices of archivists and records managers particularly in the electronic environment. Archivists and records managers would need to be oriented towards computer systems operations and computer information



systems designs. However, this role change would only be needed in the case of electronic records. Archivists and records manager would resume their normal roles if the system is paper based. Generally, this shows the dynamics of the archive and records management field.

Wallace (1993) in Erlandsson (1996: 23) suggested the use of data dictionaries to create a metadata system. Data transformation could also be used to create metadata. According to Freedman (2001: 211) a data dictionary is:

A database about data and databases. It holds the name, type, range of values, source, and authorization for access for each data element in the organization's file and databases. It also indicates which application programs use that data, so that when a change in a data structure is contemplated, a list of affected programs can be generated.

The US Environmental Protection Agency (2004) defined a data dictionary as being “an organized collection of information about the definition, structure, and use of data in an organization”.

With regard to data transformation EnviroTech (2004) defined data transformation as;

Creating information from data. This includes decoding production data and merging of records from multiple database management systems (DBMS) formats. It is also known as data scrubbing or data cleansing.

Writing on the information value added through the involvement of archivists and records managers in designing data dictionaries, Erlandsson (1996: 23) pointed out that “Data dictionaries are so designed that they can easily hold documentation relevant to archival requirements such as: appraisal criteria, provenance data, contextual information, audit trails, access restrictions, etc”. Hillmann (2000) proposed a linkage between metadata and the resource it describes. She said the metadata may be separate from the resources or the metadata could be embedded in the resource itself. Erlandsson (1996: 23) noted that for sustaining the evidential value of electronic records the specific metadata requirements provided by the Pittsburgh Project is an excellent reference for businesses communication. With regard to the Pittsburgh Project, Abbott (1999: 23) noted that the project was a response by the University of Pittsburgh School of Library and Information Science to the call by the National Historical Publications and Records Commission for research on electronic records in the USA. According to Abbott (1999) the Pittsburgh Project used diverse experts from

various information related fields such as library, archival science and information to develop a functional requirement for record keeping and metadata specifications for records attributes capture.

### **3.3.12 Records maintenance and use**

According to the US Environmental Protection Agency (2004) records maintenance and use is “Any action involving the storage, retrieval, and handling of records kept in offices...this is the second stage of the records life cycle”. Records are maintained to secure their survival and accessibility when they are needed. Records maintenance involves storing records based on the available records management standards and guidelines. Writing on the same issue Penn, Pennix and Coulson (1994: 14) claimed that:

This phase [maintenance and use] requires that records be managed both on the file folders and on the records series levels. File management usually comes into play when the record moves out of the workstation into a more central department location, easily accessible by several users.

The main requirements in the maintenance and use phase of records in the records management system are that records need to be: found, retrieved and used at any particular moment in time when they are needed (Archives Authority of New South Wales 1995 in Chinyemba 2002; Shepherd and Yeo 2003:173). The three common strategies used by organizations to maintain and use records are centralized, decentralized and the combination of the two (Ellis and Mauldin 2003; Shepherd and Yeo 2003:173). There are several advantages of centralized and decentralized systems. According to Ellis and Mauldin (2003) among the advantages of a centralized system are: reduced complications in handling the system, reduction of infrastructure requirement, easy promotion of standardization, cost reduction, easy alignment of corporate objective with records system, simplified reporting and accuracy. They then provided the following advantages of decentralized systems: increases control at the local level, departmental specific needs are met easily, departmental cost management is easy, easy creation of local reports and improved control over resources. The advantages of a centralized system are disadvantages of a decentralized system and the reverse is true. With the advantages and disadvantages of the centralized and decentralized systems above, Ellis and Mauldin (2003) favoured a combination of centralized and decentralized systems in order to gain the advantages of both.

However, Shepherd and Yeo (2003: 173) noted that the choice of strategy depends on the size of the organization and the availability of necessary resources for maintaining systems. Shepherd and Yeo (2003: 175) also listed the advantages and disadvantages of centralized and decentralized systems. However, the pros and cons provided by Shepherd and Yeo (2003) covered what was already covered by Ellis and Mauldin (2003). Therefore there is no need to duplicate them in this section. Even though Shepherd and Yeo (2003: 173) argued for a choice of a system to be determined by the size of the organization and the availability of resources, they also pointed out that "...for many organizations, a mixture of centralized and decentralized storage is appropriate".

Since records are generated everyday in organizations, and some records need to be retired in the record centre and other storage places there is need for records transfer. The transfer of records to the records centre provides space for efficient retrieval of active records and reduces costs of maintaining semi-active and inactive records in low-density areas (Parker 1999; Shepherd and Yeo 2003). The organization records centres are of three types: local records centre - housed with the business unit, a commercialised centre - housed off site or off site operated by parent organization. One could argue that the most important criterion in choosing the records centre is the security of the records. It was also noted that whichever method is chosen, it is important for organizations to have a small in-house storage facility for storage when waiting for transfer (Parker 1999; Shepherd and Yeo 2003).

Furthermore, organizations need to have policies and procedures concerning the transfer of records to the record centre and archives. In paper based records, normally the boxes with records to be retired to the records centre are accompanied with a form to be filled in and cross-checked by the receiver in the record centre (Parker 1999). The organization retains a copy and the records centre retains one copy of the form. The form would include the information on the name of the business unit, consignment number, date of transfer, box identifier, series and file identifier, title and covering data of each file and contact details of sender (Parker 1999; Shepherd and Yeo 2003). However, one could argue that the information content of transferred records would depend on the purpose and the depth needed of the records transferred.

In the case of electronic records one could argue for the same approach to be used. The storage could be centralized in the organization's central server or decentralized in different departmental servers. Parker (1999) and Shepherd and Yeo (2003: 182) argued for centralised maintenance of electronic records to simplify the control of records maintenance and use. Since the servers have limited storage capacity, therefore, there is a need for organizations to have policies and procedures to retire electronic records into offline storage facilities. Shepherd and Yeo (2003: 182) termed this kind of offline storage of electronic records "hierarchical storage management". The company's records management policies and procedures should also state clearly the management of permanent archives.

Additionally, since 5% of records in the organization are vital records there is a need for organizations to have a vital records management procedure for identifying and keeping these records safe. The vital records programme must be given special attention by all organizations (Penn. *et al.* 1989; Robek, Brown and Stephens 1996). Writing on the vital records issue, Shepherd and Yeo (2003: 210) stated that vital records need to be duplicated and stored in various safe places. Furthermore, organizations need to have a disaster plan which has been simulated and is known to all staff in the organization (Shepherd and Yeo 2003:211-212; Penn *et al.* 1989:152-161). Schlicke (1998) cited in Ngulube (2005) pointed out that the aftermath of a disaster leaves 40% of companies stricken by disaster closed. The literature divides disaster into three parts: before, during and after. Before the disaster, organizations need to insure the company with its resources such as records, installation of security measures, installation of fire detectors, installation of fire extinguishers, sprinkler systems, preparations of emergency telephones (mostly fire, police, ambulance), simulate the disaster plan and appoint a disaster committee. During the disaster, information going outside the company should be from a single source and after the disaster the organization should resume some activities in a temporary location and follow up the insurance compensation matters (Chachage 2001b).

The records management storage mediums in paper based records are paper and in the electronic environment are optical and magnetic. On the paper records, file covers need to be clearly labelled and they need to be strong. Shepherd and Yeo (2003:184) recommended plastic fasteners to avoid rust. They also recommended that boxes, shelves and cabinets be strong enough and provide reasonable space for records security and easy access. For electronic records storage media there are magnetic, hard or floppy disks or tapes and optical

storage such as the Compact Disc (CD) and Digital Versatile Disc (DVD). Others are the CD-R and Write Once and Read Many (WORM) (Shepherd and Yeo 2003:187). One could note that the most important thing to consider when acquiring electronic storage media is the life span of the storage facility, the cost of the media, brand, after sale service and warranty. For example in the case of the time span of electronic storage media Shepherd and Yeo (2003: 187) pointed out that optical discs last for 10 to 40 years while CD-R and CD ROM are claimed to last for 100 years.

Regarding records maintenance, use and storage facilities the variables addressed in this study are: record management policy, records accession tools, record centre availability, storage tools, vital records procedures and disaster preparedness plan.

### **3.3.13 Distribution and access**

According to Nyirenda (1993: 72), to distribute and provide wide access to records, simple searching aids should be established and made easily available to users. Further, Nyirenda (1993) claimed that there must be a comfortable place for users to sit down and go through the company records holdings. In addition to these points, Donaldson (1992: 4) indicated the existence of various filing systems in record management systems. The filing systems reported by him are: sequential, random, significant, chronological, numerical, alphabetical, subject, geographical and functional/subject systems. One could also add alphanumerical to Donaldson's (1992) list.

With regard to finding aids, Mnjama (1998) like Nyirenda (1993) emphasized the establishment of high standard finding aids in order to facilitate easy access to recorded information. In the case of finding aids for electronic records, Wato (2002: 128) identified the use of indexes, catalogues, and web searchable catalogues in LAN, WAN or Internet environment and interactive databases. Erlandsson (1996: 80) in the same way argued for archival World Wide Web and Gopher use for online records and archival service access. Erlandsson (1996) also presented key word searching and X.500 protocol that can be tailored to provide search of facilities by connection of local directory services to global directories. He went further to reveal the information locator service based on ANSI Z39.50. The information locator 'GILS Core' acts the same way as a card catalogue in library or information resource. For electronic records it should be noted that X.500 and Z39.50 have

similar purposes, but the latter is an international standard and Z39.50 is a national US standard (ANSI).

The important variables addressed in this section regarding distribution and access are: the availability of record-finding aids, the use of search queries, types of access tools for electronic records and the use of available records access standards in the electronic environment.

### **3.3.14 Appraisal and disposal of records**

According to Madanha (1996: 11) appraisal is the focal point of records management functions. Prytherch (2000:29) defined appraisal as “the process of analysing and selecting records in order to determine which are suitable for retention as archives.” In the context of business environment Standards Australia (1996) in Kennedy and Schauder (1999: 63) defined appraisal as “the process of evaluating the business activities to determine which records need to be captured and how long the records need to be kept, to meet business needs, the requirements of organizational accountability and community expectations”. Katuu (1999: 69) and Mwango (1996: 21) stated that appraisal is the process of evaluating and making decisions on what to retain or destroy. In other words, records are appraised to determine the value, quantity, time and space occupied by them to decide appropriate disposal actions.

According to Harris (1996), before World War I, appraisal was not an issue in archival science due to the smaller, manageable amount of information. The appraisal process came after World War I because technological advancements such as copying machines increased the amount of information, which made the appraisal process important to manage the increased amount of records. Harris’s (1996) point of view seems to suggest that if the amount of records is kept small and manageable the need for appraisal might be minimized. Probably his view could be of interest to for profit private companies due to the fact that generating fewer records reduces the use of paper, printing toner and copying ink and the depreciation of printing machines, which in turn increases the profit by reducing expenditure. However, appraisal helps to determine the retention and disposal of the records based on the evidentiality of the records.

Normally, in the paper records management system the appraisal is done during the active stage of the records (Kennedy and Schauder 1999:64) or at the end of the records life cycle (Abbott 1999:32), but in the electronic environment as noted in section 3.3.9, records managers and archivists need to participate in the design of the system. To support this argument, Harris (1996: 8) argued that the process of creating electronic records must be appraised before creating the records. Erlandsson (1996) and O'Shea (1996) writing on the theme of electronic records appraisal and quoted in Abbott (1999:32) pointed out the general acceptance of appraising electronic records before creation. The argument for electronic records appraisal before their creation supports the point made previously about the challenges of electronic records where it was suggested that records managers and archivists collaborate with system designers in order to preserve contents and metadata of the records created or received.

Defending appraisal before creation, Abbott (1999: 32) noted the danger of appraising electronic records in the last stage as many of the records may be lost due to the fact that few electronic records would reach the last stage of the record life cycle. To support Abbott's point of view Kennedy and Schauder (1999: 64) lamented the fact that appraisal at the end of life cycle is simply not appropriate for an electronic records management system. Probably this is due to the fact that the creation of electronic records depends on the controls built in to the computerized system. Therefore, organizations need to have a well-documented and established records appraisal and disposal policy. Kennedy and Schauder (1999: 65) complained that many organizations appraise their records on an unplanned basis to respond just to their immediate access or space problems.

With regard to appraisal methodology, there are many schools of thought on the appraisal of the records. Harris (1996) and Mwango (1996) mentioned Sir Hilary Jenkinson and T.R Schellenberg as the most important thinkers on the appraisal of records and archives. Harris (1996: 6) argued that Jenkinson addressed appraisal by avoiding it. He avoided it by stressing the custodian role of archivists. To use Harris' words "his solution was to leave appraisal of public records to the bureaucrats responsible for their administrative management." However, the present researcher agrees with Harris' (1996) point of view that records appraisal should not be done by non-professionals; thus Jenkinson's point of view is inappropriate.

On the other hand, Schellenberg argued for appraisal work to be done by archivists and records managers (Harris 1996: 6). Schellenberg's appraisal theory is based on the informational and evidential values of the records. The major weakness of this theory is the fact that value is a preference issue and is often difficult to determine.

Another school of thought is the record sampling approach. As the word denotes, the key issue in this approach is to capture the sample, which would represent the population of records or the entire record series (IRMT 1999: 78). The major advantage of the sampling method is in saving time. Its advantage emanates from the fact that what is considered is the sample of records series and not the population of the records series. The most important challenge of this approach is in drawing a representative sample.

Another school of thought in records appraisal is the Black Box model (Boles and Young 1991). This model advocates that archivists should determine the value of records from a box of records. The main issues addressed by this model are the costs of processing, retention and preservation, value of information and the implications of appraisal results.

Ngulube (2001b: 263) favoured the hybridisation model for records appraisal. He pointed out the marriage of appraisal and preservation as the strength of the model. He further noted that the appraisal is not an end but a continuous process. This researcher also agrees with Ngulube's (2001b) view on the continuity of the appraisal process while preserving records using imaging technologies. The researcher's agreement with this method is indicated in the model developed for this study. On the issue of hybridisation one could argue that the continuous process of records and archival appraisal could be customized and adopted in a corporation to suit the appraisal and preservation of paper and electronic records. This would help records managers or systems administrators to appraise while imaging records to preserve and would reduce the volume of the archives and records in the system.

Furthermore, Cook (1996) and Abbott (1999: 34) suggested a functional approach or macro-appraisal approach. Cook, in Erlandsson (1996: 53), pointed out that the appraisal of business functions and processes as opposed to the analysis of individual records is the suitable method for different kinds of records. Arguing for the new macro approach Cook (1996) cited in Erlandsson (1996:54) stated that:



The older archival focus on the content of records, and on having that content directly reflect public opinion or user's needs or historical trends, has been replaced by a newer focus on the larger or 'macro' context of the records, as revealed through their creator's functions, programmes, activities and transactions. In this way provenance has been rescued from the historical documentalist tradition and restored to its rightful archival place where records are linked to their context and creation.

Based on Cook's argument, it is clear that the macro appraisal approach takes into consideration the principle of provenance or *respect des fonds*. This principle is very important since it dictates the understanding of records with reference to where the records were created.

Katuu (1999: 70) advanced the macro-appraisal approach discussion by dividing it into content analysis and context analysis. Katuu (1999) noted that in the context or macro approach the business activities are analysed and in the micro or content the records themselves in both paper and/or electronic form are appraised. Harris (1996: 7) also favoured macro-appraisal approach due to the fact that it takes into consideration the provenance principle or the contextual circumstances of the record's creation. The most important aspect in the macro appraisal approach is the records managers and archivists' involvement in the analysis of the business processes. The involvement offers new business analysis managerial roles to the records management profession. In the development and use of the macro approach Erlandsson (1996) in Abbott (1999:34) reported that the Canadian National Archives and Australian National Archives were using the approach and that Germany and Netherlands have also appreciated the approach.

With regard to who should take responsibility for records appraisal, Kennedy and Schauder (1999: 65) suggested that a team represented by various units or department in the organization carry out a records appraisal process. Additionally, they suggested that some questions be answered during the appraisal process. Some of these questions are: What records should the organization be capturing as evidence of its business activities? How long do they need to be retained? Where should they be located (in physical or electronic format)? However, Mwango (1996: 21-22) had a slightly different view on who should take responsibility for records appraisal. He first declared that the appraisal issue depends on the preference of the organization. He then suggested that the appraisal could be done by a

committee of people from outside the organization together with key people in the organization or by an individual person who is expert in the records management field coming from outside the organization. Mwango's (1996) point of view seems to imply that if the organization is big and complicated then it might be pertinent to use the committee or a team of people and if the organization is small then it is relevant to use an individual such as a records manager from outside the organization.

Kennedy and Schauder (1999: 71) also advocated that before the appraisal is carried out, it is important for organizations to conduct a record inventory, which is the summary of the types of records in an organization. They further noted that the major functions of a records inventory are to provide the whole picture of the organization's records holdings and to support the planning of records management requirements. Osburn (1989) in Kennedy and Schauder (1999: 73) provided a "record volume analysis sheet" which supplies information on the volume, location, vitality of records, security rating of records, timing of being active, semi-active, statutory requirements of records and whether they have any long-term value and when it can be destroyed.

Moreover, after the appraisal of the records, the retention schedules or disposal schedules are established. Kennedy and Schauder (1999: 78) noted that the retention schedule of business records is always determined by the primary purpose of the record series. The major questions to be answered at the stage of developing retention schedules are based on the likelihood of the records being needed and used to support decision-making and if the information can be retrieved somewhere else. The decision to retain record series can also be determined through the following simple reference ratio formula provided by Robek, Brown and Stephens (1996: 165):

**Equation 1: Records reference ratio formula**

$$\text{RREM} / \text{TNRSS} \times 100 = \%$$

RREM stands for records requested each month; / stands for divide by; TNRSS stands for Total Number of Records in a System or Subsystem and X stands for multiplication and the result is expressed as a percentage.

Based on the above equation, the higher the percentage of reference ratio the higher the activeness of the records series and the reverse is true. The statistical information from calculations using this equation could support the retention of records decisions. As a final note, Kennedy and Schauder (1999: 80) emphasized the need for cooperation of members from different departments and top management in the preparation of retention schedules. They also noted that a retention schedule should indicate if the record is permanent, the number of years to retain the record, and at what particular moment of time the file will be deleted to free spaces in the computer for reusing the space or disposed to free space in the storage areas. As noted earlier in this section, to have a reasonable appraisal and retention schedule the organization needs to be supported by an integrated policy to addresses all the issues in electronic records and paper based records. The policy issues are addressed in the next section.

### **3.3.15 Managerial and policy related issues**

Since business communities are profit oriented ventures, they are more attracted by assets which bring tangible hard cash than assets that are intangible. Records are among assets which have been seen to have more intangible benefits than tangible ones. Probably that is the reason why these assets are neglected. Many scholars have revealed the neglect of records and information and recommended some practical measures for management support. Regarding the issue of neglect, a study by Fraser (1975: 9) on business records management in South Africa pointed out that: “the majority of companies seem to develop a short-lived interest in their records only when they want a history of the company written to commemorate an important anniversary”. Twenty nine years later Mnjama (2004) seems to have the same view when he titled his article “Records and information: the neglected resource”. In his article Mnjama (2004) listed many problems experienced in the countries surveyed, including Tanzania, where the current study took place.

In addition to the problems he revealed, Mnjama (2004: 41) stated that: “One way of gaining support for the records information management programme is through the creation of a [records information] committee [in the companies]...” He also preferred the committee to comprise members from all the units in the organization. Penn, Pennix and Coulson (1994:34) went further to specifically suggest, legal counsel, accountant or tax personnel,

internal auditors, information managers, administrators and other key figures to be involved in the records information committee. Therefore one could argue that in order to gain a company's political will it is important for records information managers to devise ways to attract top management support for funding issues and other types of support. One way is to involve the top management in the corporate records information committee. One of the committee's functions is to set up organization policies and procedures (Mnjama 2004).

Menou (1991: 50) defined a policy as "a set of principles which guide a regular course of action". Furthermore Menou (1991: 50) radically argued that: "lack of information policy is lack of preparation by...information specialists" There are several ways of structuring a policy in an organization. Some organizations structure their policies by writing and some embed the policies in their daily duties. However, one could argue that the most important thing is the implementation of the policy. Menou (1991: 53) discussed the policy issues further by strongly arguing that: "a policy tells what game to be played and what are the rules of the game. It does not tell you how to play the game". The researcher of the present study agrees with this position and argues for procedures to accompany policy to cater for "...how to play the game" (Menou 1991: 53). With regard to what should be included in the policy, Penn, Pennix and Coulson (1994: 33) stated that: "included should be a reference to a total, comprehensive records management program which provides for the management of recorded information throughout its life cycle".

There are three ways of establishing policies in the organization. A policy could be driven by needs or could be imposed or driven by imitation forces (Menou 1991: 58). Therefore the discussion of policy related issues in the companies under this study would assume the importance of the policies as stated in this section and would adopt a holistic overview of corporate information system.

A policy is pertinent for the operations of any type of organization. A policy could be structured and documented or just embedded in the daily operations like most household policies. Without policy many operations are likely to fail or be carried out chaotically. For example, Kaima (1999) reported a failure of records management in Papua New Guinea (PNG) due to lack of policies, which stipulated legislation (command and control) and procedures. Kaima (1999) further noted that the records in PNG were haphazardly managed. Records were destroyed without appraisal and records were not properly created.

To emphasize the importance of policy in archival and records management, a recent study by Sejane (2004: 60) argued that policies act as legal contracts between the information agency and their stakeholders. Hedstrom (2000) in Sejane (2004: 61) pointed out that:

Well developed policies help organizations to improve the quality and reliability of their electronic records keeping systems and can protect organizations against litigation over improper use of information systems for record keeping purposes.

From the discussion above it is evident that the availability of policies in the organization signifies the level of appreciation of records management in the organization. The next section deals with previous studies of corporate records management.

### **3.3.16 Previous studies of corporate records management**

There are four more or less business records management related studies that were reviewed. The first and most important study is by Yusof and Chell (1999). This study sought to create awareness regarding the importance of managing records in the business community in the Malaysia. The study randomly selected 206 companies from the Kuala Lumpur stock exchange in Malaysia. The study used a self-administered questionnaire to collect data. Only 90 out of 206 companies returned the questionnaire, which is equal to 44% of the sample population. Yusof and Chell's (1999) study used SPSS for data analysis and presented the results in tables and text narrations. Based on the corresponding specific objectives the study concluded that Malaysian companies kept records, but they were not aware of the need to manage records based on records management standards and procedures. The companies also lacked professionals in the field of records management. The companies were unaware of existing regulations that require Malaysian companies to make records available to the public. The companies were also not aware of the advantages of records management programmes. The most interesting point in Yusof and Chell's (1999) study is the revelation that the 30 years rule also applies to private businesses. This is due to the fact that in most countries the 30 years rule applies only to public records.

Ndibalema (2001) studied the state of records management in the National Social Security Fund (NSSF) in Tanzania. The NSSF is a Tanzanian based parastatal organization. The

present researcher's interest in reviewing this study arose from the fact that the study was done in the Tanzanian environment. In addition, the trend to privatise all government businesses in Tanzania implies the high probability of NSSF privatization. Ndibalema's study therefore, provided useful insights regarding records management in Tanzanian companies.

The main objective of Ndibalema's (2001) study was to investigate how records in the NSSF are created, controlled and maintained to support the NSSF's functions. The primary data were collected using a questionnaire and interview. Ndibalema (2001) administered the questionnaires and used interviews to supplement the questionnaire. She also used personal observations to verify information gathered through questionnaires and interviews. Data were analysed qualitatively for unstructured questions and quantitatively for structured categorical questions. Ndibalema (2001) used content analysis to analyse qualitative data. The target population was 30 respondents (10 action officers and 20 records personnel). The study was carried out at the NSSF headquarters. The observations were carried out in the membership registration, confidential units, administration departments and record centers. The study concluded that there is a lack of a comprehensive scheme of service for records personnel, a lack of support and awareness by top management on the importance of records management, a lack of a records management programme, a lack of a records retention schedule, a lack of qualified staff and a lack of equipment for records management.

Another study that was reviewed was the one by Hedberg (2002) about sustainability reporting in Sweden using the GRI guidelines. Hedberg's (2002: ii) study sought to answer the question "why the Swedish companies, which are already using the guidelines, have chosen to use the guidelines and what type of behavioural changes with the companies it lead to". The purpose of the study was to gain insight into the real use use of the GRI in reporting by companies in order to describe, explain and judge the guideline. The population comprised companies that were in Sweden and listed in the GRI website. The data collection used telephone interviews and face-to-face interviews. The response rate was 10 companies out of 12 in the population sample. The interviews were carried out with the people responsible for sustainability reporting, and who were mainly environmental directors or managers. The main questions concerned sustainability and experience for sustainability reporting. The interviews were recorded through note taking and to ensure what was noted was what the responded had said, the fair copies of questions and answers were e-mailed to respondents for approval. The data analysis method was not explicitly explained. However, the final

conclusions were based on the comparisons between the respondents of the components of companies' sustainability reports and the indicators proposed by the GRI guideline. Hedberg (2002) concluded that the GRI guideline was a potential tool for gaining control and visibility of the triple bottom line on a corporate level, and it highlighted the importance of collecting internal information.

The last study reviewed was about managing records for the ISO 9000 compliance in the Botswana Meat Commission (BMC). The action study was reported in the form of journal articles by Mnjama (2000) and Sebina (2001). The two articles provide two different insights and perspectives on the same issue. According to the articles, the authors Mnjama (2000) and Sebina (2001) were consultants in the BMC project to implement a records management system following the ISO 9000 series compliance. The interest in reviewing these articles arose because the BMC initiated the project due to the pressures from stakeholders to voluntarily manage its records according to the quality standard ISO 9000 series. One could argue that the environment which pressurized the BMC to set up a records management system was similar to the anticipated environment of companies in this study. The final outcome of the study was the design of the proper and functioning records management system at the BMC. In the process, the work was divided into three parts. An important part for the current study was the first part, reviewing the existing record keeping practices. In this phase, interviews and physical inspection or personal observations were used as data collection methods. The consultants used observation or physical inspection (Sebina 2001) to verify data collected in the interviews. The real life experience of this action study reviewed motivated the current study to adopt interviews and observation as a data collection instruments. Table 3 summarizes the previous studies related to the present study.

**Table 3: The summary of the previous studies: foci and methodologies**

<b>STUDY (Author(s) and Year)</b>	<b>FOCUS</b>	<b>DATA COLLECTION METHODS</b>
Yusof and Chell (1999)	Business records management in Malaysia	Self-administered questionnaire
Ndibalema (2001)	Social security records management in Tanzania	Administered questionnaire, interviews and observations
Sebina (2001) and Mnjama (2000)	Records management for the ISO 9000 compliance	Interviews and physical inspection or personal observations
Hedberg (2002)	Sustainability reporting using the GRI guidelines in Sweden	Telephone interviews and e-mail for confirmation

In short, Yusof and Chell's (1999) study is very significant, since it dealt with business records directly, however, the study did not cover electronic records. The study was also carried out in Asia while the current study was carried out in Tanzania. The study used self-administered questionnaire. The most important information extracted from the study by Yusof and Chell (1999) is the implication that self-administered questionnaires are not appropriate methods for data collection in the private business environment. This implication was arrived at from the study's response rate which was only 44% (Yusof and Chell 1999: 228). This method was not used in the current study as a proactive measure to minimize a low response rate.

Ndibalema's (2001) study dealt only with social and financial claims related records, while the current study covers environmental records as well. Ndibalema's study did not cover electronic records while the current study takes a hybrid approach. The Hedberg (2002) study is important since the current study transformed the GRI guidelines indicators into records series. However, unlike Hedberg's (2002) study the telephone interviews and e-mails as methods for data collection were not used in the current study. The action study reported by Mnjama (2000) and Sebina (2001) is important for informing the data collection methods and the relevance of records keeping for voluntary schemes such as the ISO 9000 in the real life situation.



- Statistical models, which are also sometimes included in the mathematical models. These types of models, according to MacKay (2003), allow the characterization of a system based on statistical parameters such as mode, median, mean, variance, regression coefficients, and least squares fit to some mathematical equations. Statistical models are very helpful in identifying patterns and relationships of data sets.
- The last but not least type of models are visualization models, which according to MacKay (2003), are anything that could help one visualize direct links between data and some graphic or image output or can be linked in a series with some other types of models so as to convert its input into a visually useful output

The model constructed in this study used a conceptual model type and visual diagrams to represent information flows in the system. In the field of information management, other studies such as those of Hawkins *et al.* (2001) and Jarvelin and Wilson (2003) successfully used conceptual models in their studies.

### 3.4.1 Features and uses of models

According to Hestenes (1996: 8), the basic features of a model are a systemic structure that specifies a *composition*, or internal parts of the system, an *environment*, or external parts linked to the system and *connections*, or external and internal causal links. In the features of the models MacKay (2003) pointed out that:

A model can come in many shapes, size, and styles. It is important to emphasize that a model is not the real world but merely a human construct to help us better understand real world systems. In general all models have an information input, an information processor, and an output or expected results.

Regardless of the number of model attributes, based on the purpose of the model the constructed models use only selected aspects of the phenomenon they represent (Kebede 2002: 72). It was further noted that there could be some differences between the model and what it represents and in general the models need to be simple in order to be easily understandable (Kebede 2002). To cement his argument Kebede cited Benyon (1997) who noted that a model must be accurate enough for its purposes, highlighting only the important features, but ignore the irrelevant aspects. Therefore based on the discussion above it is possible for a constructed model not to accommodate all the features so long as the purpose

of the model is met. The most important fact in the model construction is that model development is not an end but rather a means to an end. Models pave ways for useful discussions on the contextual representation of the model.

In discussing the uses of models, Kebede (2002: 72) highlighted that models are used to capture and communicate essential aspects of the phenomenon in order to generate understanding of the phenomenon. He further noted that the selection of certain system attributes to be included in the model shows [exactly] what needs to be known about the phenomenon. To put Kebede's (2002) arguments in other words, models are used to simplify the understanding of a situation in question. Additionally, Hall and Day (1977: 82) cited in Costanza and Gottlieb (1998) noted that models are used not only for understanding but also for assessing and optimizing systems. In elaborating their main argument they pointed out that some develop a model simply to gain a conceptual picture of system operations. On the other hand, some develop models to examine features that are critical in determining system behaviour and some just want to know what conditions lead to optimal outcome of the system.

### **3.4.2 Model construction process**

Landreault (2004) defined modelling as “the act or process of generating an abstract description of a system to simplify the analysis of the system. The abstract description must be suitable for use...” In reacting to this definition of modelling, one could argue that the definition imply that modelling is a process of representing a system in a simplified way and indicating the manner in which the existing system could be improved to function properly using available principles and standards.

According to Hestenes (1996: 13), the modelling process starts with a situational analysis. The situational analysis provides an understanding of the modelled system. Hestenes (1996) further observed that the situational analysis involves a thorough analysis and evaluation of the system situation. The situation could be analysed and evaluated through physical site inspection or it could be presented in the form of text and later analysed and evaluated. From a situational analysis, a rough picture of a suitable model is expected to emerge. The tools that were used to analyse the records management situation in companies in the Iringa region are reported in Chapter Four and the results presented in subsequent chapters.

However, as noted by Kebede (2002) some irrelevant information would be disregarded and one could also think that additional information based on the purpose of the model could be introduced. In the situational analysis the first thing to do is to identify the system boundary and identify the variables of interest to be included in the model (Hestenes 1996). The next step, according to Hestenes (1996: 14), is to analyse the model and the last step is the model validation. The model is analysed in order to understand its structures and implications. Hestenes (1999) further noted that the extraction of implications from a constructed model is called model-based inferences.

In the current study the model analysis is used to describe and analyse all the properties of the model in order to reveal if the model caters for all the records generated from sustainability reporting. In the case of the model validation process, the model is assessed based on the adequacy in representing the expected results of a particular system. This process involves comparing the structure and predictions of the model with empirical data of the system represented by the model. Again as noted above, based on the fact that all the models are incomplete representations of the reality, that is, always some features of the real system are left out, a perfect match in the validation process is not expected. Moreover, one could assume a full assessment of model validity to include aspects that are usually neglected. However, the validation part of the model is beyond the scope of this study, and directions for future work for model validation are identified in the last chapter of this study.

### **3.5 Summary**

This literature review presented theories of records management and the origin, trends, drivers and barriers to sustainability reporting. The review also demonstrated the link between sustainability reporting and records management. The literature review further provided insights into records management in general. The study takes a hybrid approach to address issues in records management. The review identified variables used for data collection. The variables were established from discussion around the frameworks of records management. The areas that contributed variables for data collection are the pre-natal stage, creation and capture of records, metadata information for electronic records in companies with computers, appraisal and scheduling, maintenance and use of records, and distribution and access. In the last section, the review presented modelling approaches, different types of

models and indicated the model type adopted by this study. The next chapter revisits section 1.1.1 and presents the detailed research design and methodology used in this study.

## CHAPTER FOUR

### Research methodology

#### 4.0 Introduction

The purpose of the study was to develop a model for a corporate records management system with special reference to sustainability reporting in the Iringa region of Tanzania. To achieve the purpose of the study, empirical data on the status of existing corporate records management systems for sustainability reporting purposes were collected. Using secondary data while reflecting on the existing records management for sustainability reporting practices, the study developed a model to fulfil the overall objective of the study.

The main issue addressed in this chapter is the conceptual structure which formed the framework for the research. This chapter, therefore, presents the research design, the population under study and data collection methods used. Thereafter, the chapter explains the process of pretesting the instruments and how they were approved. Next, the procedures followed for data collection and data analysis techniques are discussed. The chapter also evaluates the methodology used in terms of replication, problems encountered during the data collection process, reliability, validity and ethical issues. The last section summarizes the chapter coverage.

#### 4.1 Research design

The research design provides both a general picture and a scheme or pattern of how the research was carried out. According to Kothari (2004), the research design provides the blueprint of where the study will be carried out, what type of data is required, where the required data could be collected, what the sample design will be, if any, what techniques of data collection will be used, and how the data will be analysed. Kothari (2004: 31) further hinted that a research design is simply the answer to “what” “where” “when” “how” and “why” questions for any research, a general conceptual plan or an outline for conducting a certain research. Mikkelsen (1995) remarked that when thinking of research design the key question is “which research design is best?” He concluded that there is no simple answer to the question. In other words, Mikkelsen (1995) suggested that the nature and the context of the study determine a research design, since a good research design for a certain study might

be inappropriate for another study. Kothari (2004: 31) pointed out that a good research design should be “flexible, appropriate, efficient and economical”. He further added that the most appropriate research design is the one providing opportunities to consider different aspects of a research problem. Generally, one could argue that the research design is case specific and situational in nature.

The widely mentioned types of research are: descriptive, exploratory, experimental, relational and action-oriented research (Bless and Higson-Smith 2000; Rosnow and Rosenthal 1996). The purpose of the present study was to develop a model of a corporate records management system with the focus on sustainability reporting in the Iringa region of Tanzania. The study established the old model or the existing records management systems through collecting and processing empirical data. The new model developed addresses the question of the gap in the existing records management systems in order to achieve better corporate records management. The new model developed drew on an intensive literature review in the areas of records management, sustainability and sustainability reporting and the researcher’s experience in information systems development. Therefore, the study is considered descriptive in the empirical stage and exploratory in the model development stage.

Babbie (2002) and Kothari (2004) argued that research could be applied or be pure research. In the case of applied research Babbie (2002) noted that the discovery ought to be useful and an agent of change. In the case of pure research Kothari (2004: 3) argued that the main purpose is generalization and formulation of theories. Since the purpose of this study was to develop a specific model for a corporate records management system, which would improve the records management practices in the exporting companies and would support the sustainability reporting processes in the Iringa region of Tanzania, this research is considered pure research in the model development stage, and the model testing which is beyond the scope of this study would be applied research.

## **4.2 Study population**

Scholars such as Kothari (2004); Huysamen (1994) and Keya *et al.* (1989) defined a study population as the entire collection of cases or units about which the researcher wishes to make conclusions. Monette, Sullivan and Dejong (1990: 132) defined the study population as “all possible cases of what we are interested in studying”. Babbie (2002: 446) defined

population as the “specified aggregation of the elements in the study.” Monette, Sullivan and Dejong (1990: 132) identified content, unit, extent and time as characteristics of a population in a study. In the case of content they argued that a population needs to have common characteristics. Involvement in the exportation business in Iringa region is the common characteristic of the population of this study. Monette, Sullivan and Dejong (1990: 133) pointed out that the unit of analysis of the study needs to be the same. In this study the unit of analysis is the exporting companies in Iringa region. Data were collected by interviewing persons responsible for companies’ records management systems, and by simple observation of record management systems in all the cases in the study population.

The population under study need to have a common geographical coverage or “extent” (Monette, Sullivan and Dejong 1990: 133). The population of this study is drawn from only one region of Tanzania namely Iringa. With regard to time frames, Monette, Sullivan and Dejong (1990: 133) argued that subjects in possession of appropriate characteristics and which are operational during the data collection time qualify for inclusion in the population. The study included only companies doing export business at the time of the study. For example, the study left out Southern Paper Mills (SPM), the largest pulp and paper export company in Iringa, Tanzania and possibly in East Africa because it was not operating at the time of the study. In addition the study also excluded the Lupembe Tea Factory because the Tanganyika Wattle and Kibena Tea Company export on behalf of the Lupembe Tea Factory.

The population of this study therefore comprised the following nine companies in the Iringa region of Tanzania, that were exporting at the time of the study.

**Table 4: Companies in the study population and their industrial activities**

NAME OF THE COMPANY	INDUSTRIAL ACTIVITIES
ASAS Dairy Milk Limited	Milk processing and animal husbandry
Brook Bond Tea Company	Tea farming and processing
Dabaga Vegetable and Fruit Canning	Tomatoes, onions, chillies and fruit processing
Maji Africa (Tanzathai)	Water purification
Mufindi Tea Company	Tea farming and processing
Sao Hill Saw Mill Company	Biomass and renewable resources, forests and woodwork
Tanganyika Wattle Company and Tea Company	Agriculture, forests, energy generation, tea processing,
Tanzania Pyrethrum Company	Pyrethrum processing and marketing
TATEPA Company Limited	Tea processing

**Source:** The list was extracted from the Iringa Region Trading Office (2004: 4)

The choice of exporting companies as a population of this study was inspired by organizational imitation theory. The imitation theory purports that in the organizational field, small and unsuccessful organizations imitate successful ones. Involvement in international business such as importing, exporting and intraporting is among the characteristics of success in the organizational field. To demonstrate this, Sahlin-Anderson (1996: 70) noted that: “Organizations praise their heroes, they imitate them ... Firms imitate seemingly successful business strategies (going international) ...and preferences (focusing on ecological management).” This study therefore used exporting companies in the Iringa region assuming that eventually small businesses and unsuccessful companies would imitate these successful companies. Based on the organizational imitation theory the population of nine cases which export products and services abroad was regarded as representative of companies in the Iringa region of Tanzania. However, this study could not be generalized to other Tanzanian regions due to cultural, technological and infrastructural differences among these regions.



Additionally, Bryman (1988: 129) advised researchers to focus on one specific collectivity in order to gain a holistic overview of a population under study. Other scholars argue for a small, focused population in order to focus on quality of data. To qualify the focus on quality Punch (2003: 41) pointed out that “Since findings and conclusions from any study are only as good as the data on which they are based..., [therefore] empirical research should strive for the best possible quality of data”. He went further to point out that in contrast to the 1960s, nowadays the trend is to use small and more targeted populations. To use Punch’s (2003:44) words “...the issue is not more data, it is better data, hence the idea that it is better to have a small body of good quality data than a larger body of data of doubtful quality.” In this study therefore, the use of the whole population of only nine cases was motivated by the idea of using a small and focused population to obtain high quality data as proposed by Punch (2003). Other studies such as that of Hedberg (2002) also successfully used only twelve companies. The quality of data in the current study is discussed using reliability and validity as criteria for evaluation in section 4.7.2 and response rate in section 4.4.2 as suggested by Punch (2003).

#### **4.2.1 Source of population**

A list of the population was obtained from the business profile of the Iringa region in the Iringa Regional Trading Office (2004). After several attempts to obtain the list of exporting companies from Iringa region, Mr. Juma Bin Juma, who was the Regional Trading Officer (RTO) at the time of the study, discussed the list with the researcher before presenting the pamphlet with the list of exporting companies in the Iringa region. With regard to using a sample from a population, Leedy (1997) suggested that there is no point in sampling a population with less than one hundred units or objects. Since the population for this study was nine units, the researcher decided to use all the companies in the population for data collection.

#### **4.2.2 Unit of analysis**

The unit of analysis is the person or objects from whom the researcher collects data (Bless and Higson-Smith 2000:64). For this study, therefore, the units of analysis were all the exporting companies in the Iringa region. The interviews were conducted with persons who were responsible for records management systems in the companies in the study population.

The data was also collected from the areas where records were stored and records related equipment such as computers and shelves could be found. Interviews and observation processes are covered in sections 4.3.1 and 4.3.2 respectively.

### **4.3 Data collection methods**

The study used primary and secondary data. In general, primary data or empirical data can be collected using questionnaires, interviews, by observation and experiments. Some scholars who advocate these methods, are Bright (1991), Kothari (2004), Cooksey and Alfred (1995) and Huysamen (1994). In the case of secondary data the common methods used by many researchers are library research or desktop research.

Bailey (1994: 105) categorized empirical data collection methods into two types, survey and non-survey methods. The survey method uses questionnaire and interviews. Other data collection methods are observation and experimental research. On the issue of how to use these methods, research methodology writers such as Cohen, Manion and Morrison (2000: 112), Jankowicz (2000: 159), Mikkelsen (1995: 81) and Saunders, Lewis and Thornhil (2003: 100) promoted the idea of using multiple strategies or a triangulation technique in research data collection in order to increase data accuracy and precision. Cohen, Manion and Morrison (2000: 269) strongly suggested the use of multiple methods particularly when a holistic picture of a phenomenon is sought. Jankowicz (2000: 214) argued for method triangulation in order to cross-check one method's results with another method.

Since the descriptive part of the study sought to reveal the holistic existing status of corporate records management systems, the study triangulated interviews with observation for empirical data collection in line with the view of Jankowicz (2000) and Cohen, Manion and Morrison (2000). The interview was used as the major data collection method and observation as a supplement to the interview technique. Ndibalema (2001), Mnjama (2002) and Sebina (2001) also used interviews and physical inspection or observation successfully in their records management related studies. In the case of secondary data, the present study used published and unpublished materials. The following sections treat each data collection technique separately.

#### **4.3.1 Interview and interview protocol design**

The interview is one of the major survey data collection methods. According to Bright (1991:59) and Bailey (1994: 190-192), there are three main types of interviews: structured, semi-structured, and unstructured. The basic characteristics of the interview include direct, face-to-face communication, an interaction between researcher and interviewee and verbal and non-verbal communication like eye contact, facial gesture, body language, posture, tone and voice (Bright 1991). This study adopted the semi-structured interview in data collection. This method provided flexibility to the researcher to use neutral probing and to explain to the interviewees in case of misunderstanding. The neutral probing was used mostly in the other categories and open-ended questions. The neutral, probing questions used were: "In what way? How is that? Anything else? What do you mean by that?" or silence was used to let the respondents continue talking as proposed by Babbie (1992: 267). The main reason for using neutral probing was to control and maintain the original contents of the interview questions. The interview method was selected due to the closeness of the cases in the population and this facilitated easy accessibility of the companies in this study.

The major advantage of interviews is that they allow interpersonal interaction, which gives the interviewer a chance to observe non-verbal communication and make an on the spot differentiation between facts and fiction. The interview method also provides an opportunity to obtain in-depth data by probing and asking supplementary questions in an area where the researcher needs more information. High response rate, clarification of confusing answers and questions, greater flexibility, control over the environment where the interview is taking place, control over question order, spontaneous recording of the answers, assurance of getting answers, assurance of completeness, and the immediate response of a face-to-face interview allows comparison with other events after or before the interview (Babbie 2002; Huysamen 1994; Young 1994; Bailey 1994; Bright 1991).

On the other hand, Young (1994) pointed out that an interview is subject to a high level of the researcher's subjectivity, which if entertained, would destroy the meaning of the whole research. He further noted that there might be unwarranted interpretations in the discussion. There might also be faulty memorizing of the conversation. Bailey (1994) concurred with Young (1994) and added that interviews sometimes tend to be very costly and time consuming, especially if the research sites are far apart. Another limitation of interviews is

less opportunity for respondents to consult records or conduct research before answering interview questions. These opportunities of researching and consulting records are granted to respondents in a mailed questionnaire. Sometimes interviews are an inconvenience to interviewees with busy schedules, which may lead to lack of accessibility to respondents. Interviews also have less anonymity, which might hinder gathering of sensitive information.

Despite these disadvantages, it was considered that the advantages of the interview technique outweighed its disadvantages. The relevant aspects of the study in relation to interview techniques are the small population and geographical closeness of the companies. In conducting the interviews, the study used an interview protocol (see Appendix 6 for the interview protocol). The interview protocol was designed to gather information in order to answer research questions. The questions were chosen to solicit information based on the modified four phases of the record life cycle framework as mentioned at the end of section 3.1. The interview protocol comprised mostly closed-ended questions and a few open-ended questions. The main reason for this design was to increase the face validity of the protocol and practically reduce the interview time since it was assumed during the interview design that interviewees were busy persons in the business environment. The abundant records management literature also facilitated the easy construction of interview categories for the closed-ended questions. The main advantage of categorical questions is the fact that it saves time for both interviewer and interviewees. The design of the interview protocol was based on the specific objectives of the study, which brought about the research questions for this study. The interview protocol for this study was structured in the following order:

- ❖ Section one of the interview protocol, allowed the researcher to gather background information on the persons who were responsible for corporate records management systems in the companies under study. This information was important in explaining the practices of records management systems. The background information was also pertinent to an assessment of whether the companies took corporate records management systems and sustainability reporting into serious consideration. The background information was also important to examine whether companies were aware of standards which are pertinent to sustainability and records management. This information supported the fulfilment of objective number one and three of the study.

- ❖ Section two of the interview protocol intended to provide detailed information on types of records series, in relation to sustainability reporting; the process of creating or receiving records; and the influence of information technology in the corporate record management field. This information was relevant to fulfil objectives numbers two, four and five outlined in the specific objectives section in the first chapter of this thesis and to answer the corresponding research questions.
- ❖ Sections three, four and five of the interview protocol intended to gather information on typical records management practices in order to fulfil objectives numbers six, seven, eight and nine. This information was significant in establishing the current status of records management practices in the companies under study.
- ❖ Section six of the interview protocol intended to solicit information on the support provided by top management and the availability of integrated policies to guide corporate records management. It is assumed that the absence of support from top management could have a bearing on the practices of records management in the companies under study. Information on top management support and the availability of policies information helped to fulfil objective number ten of the study.

The above data together with the data collected by the observation technique and secondary data covered in section 4.3.2 and 4.3.3 respectively allowed the researcher to fulfil the purpose of the research of developing a model for a corporate record management system with special reference to sustainability reporting in the Iringa region of Tanzania.

#### **4.3.2 Observation and observation schedule design**

When observation is used together with interviews or the questionnaire method, the researcher has the opportunity to “...compare what they did and what they say they did.” (Powell 1985: 112). According to Bless and Higson-Smith (2000: 155) observation is “a data collection technique based on the direct observation of participants’ behaviour.” Other scholars regard the act of observation in a less formal manner. For example, Kothari (1992:118) and Pons (1992: 47) observed that we constantly observe things that surround us everyday.

Pons (1992: 47), however, added that in our daily observations "...we constantly combine observation with talking and listening in order to collect, interpret and use information." He further noted that we perform the act of observation when we read, write, count, measure, buy, sell, play sports or/and ask for descriptions of things. Since we observe things everyday informally, in order to make observation a formal data collection tool for scientific research, the act of observation needs to be "systematically planned and recorded" (Kothari 1992: 96).

As noted above this study adopted the observation technique as a tool for data collection to cross-check the interview results. As pointed out by Kothari (1992), scientific rules of planning the observation and of recording the data systematically were used. In order to explain the selection of the type of observation used, the following paragraphs will discuss the different types of observation techniques. According to Bailey (1994: 239), there are two types of observation: participant and non-participant. To further the discussion, Bless and Higson-Smith (2000: 103-104) introduced the concept of modified participant observation, presumably to overcome the disadvantages of participant observation. Since participant and non-participant or simple observations are common forms of observational research the following is their brief account.

According to Bailey (1994:239), participant observation is the type in which the observer participates fully in the observed activities and pretends to be not observing. Non-participant observation on the other hand is where the observer does not participate in the observed activities and does not pretend that he or she is not observing. The observation and recording in this case is done openly. Based on the advantages of the simple observation technique, which are shown elsewhere in this chapter, the study adopted simple observation or non-participant observation. According to Pons (1992: 55), observational techniques are "highly structured, structured or unstructured". The following is a brief account of each.

Pons (1992: 55) argued that to use a highly structured observational technique one defines carefully everything to be observed and recorded. This technique is highly controlled and items to be observed are predefined. This type of observation is similar to a check-list. The main disadvantage of this method is the fact that un-predefined items are ignored, even if they are revealed to be important later in the fieldwork. In the case of unstructured observational research, nothing is predefined and all the observations and recording is covert in nature. In a structured observation technique, the observation uses predefined items to be

observed, but contrary to the highly structured technique, this type predefines broad themes to be observed and recorded in the form of description for qualitative analysis purposes. This study adopted the structured technique with predefined themes on the observation schedule (see Appendix 7 for the observation schedule).

An observational technique has several advantages and disadvantages. The main advantage of observation is that it is superior to other methods of data collection when people are unwilling to talk or generally in a non-verbal situation (Moore 1987: 14). Another advantage is the fact that observational techniques enable researchers to see events and activities in their natural environment or as they occur. In other words, observation could give information on the reality of a particular physical environment. This kind of information was important in developing a records management model which focuses on sustainability reporting. The structured observational technique also enables researchers to conduct a thorough repeated observation over time or a longitudinal analysis of the cycle of events, activities and interactions while integrating practices and research. Observational research is also relatively cheap when compared to survey methods. Observation could take place in very small areas such as a secretary's office and could provide useful information to fulfil research objectives. Finally, observational research could simply supplement other data collection methods such as surveys or could be used to focus on other data collection methods.

The main disadvantages of the observation technique are the following. Researchers are not always allowed access to all the activities and processes of research interest. For example, being an outsider makes it sometimes difficult to gain entry to a sensitive area for instance the factory production area. Another disadvantage of observational research is the lack of anonymity. In this case, it is sometimes difficult to maintain respondents' anonymity. Furthermore, observational research is difficult to quantify when the researcher opts for structured and/or unstructured methods. The natural setting of events could result in a lot of extraneous variables that could be difficult to control in observational research. Another disadvantage of observational research is the fact that the techniques might not be able to provide useful data when researching a large number of people in an area of high workflow. Moreover, observational research could be very time consuming. Observational research is not suitable for past events and activities. Finally, observation could simply not be used in some kinds of research such as intention revealing or opinions research (Kothari 2004: 96-97; Bailey 1994: 240-243; Pons 1992: 67-69; Moore 1987: 14-15).

Based on the population proximity and size of this study and on the advantages and disadvantages of the observation technique stated above, it was clear that in the context of this study the advantages of observation outweighed the disadvantages, hence the use of a simple structured observation technique to supplement the interview technique in data collection.

One of the most important questions to answer in structured observational research is “what is to be observed?” (Pons 1992:50). The study answered this question in the carefully designed observational schedule. First, the observation schedule drew heavily on a well-established record survey method as proposed by Mnjama (2002: 33) while the sustainability focus in the schedule was borrowed from the holistic Sustainability Balance Scorecard (SBS) perspectives and variables in the GRI guidelines (GRI 2002). The holistic perspective of the company was important in order to identify areas to be observed that have direct relevance to records emanating from sustainability reporting. The combination of records survey, Sustainability Balance Scorecard and GRI aspects was essential due to the exploratory nature of the model developed and in order to motivate company management to participate. According to Kothari (1992: 41) in an exploratory study, data collection design “... must be flexible enough to permit the consideration of many different aspects of a phenomenon”.

Record survey is defined by Walne (1990: 39) as:

...the gathering of basic information about records regarding their quantity, physical form and type, location, physical condition, storage facilities, rate of accumulation, use and similar data for purpose of planning acquisition and disposal programmes, microfilming operations, new facilities and related activities.

The Botswana National Archive and Record Service (1992: 53) cited in Sebina (2001) argued for the use of record surveys to fully understand the way created or received records are treated. Writing on a similar theme, Mnjama (2002: 33) went further to propose the following questions to be answered for a comprehensive record survey:

- What records exist and in what quantity?
- What is their growth rate?
- What proportion can be destroyed?



- What proportion is used?
- What record type exists?
- Where are the records stored?
- What kind of facilities and equipments are required?
- When and where will these facilities be required?
- Who manages the records?
- Are there any... rules and regulations regarding the retention and destruction of records?
- What type of filing and retrieval systems are used?
- Do they follow the orderly systematic flow of records and information throughout the life cycle, that is, current, semi-current and non-current?

The study observation schedule adopted many of the above questions in the development of issues to be observed and added issues related to the pre-natal stage of the modified records management theory (see Appendix 7 for the observation schedule).

The study focused on sustainability issues at the corporate level through the SBS and GRI perspectives. The SBS is a management tool, which facilitates the mapping of all the organization's activities as part of a company performance measurement system (Bourne and Bourne 2000; Figge *et al.* 2002). The Balance Scorecard and GRI, therefore, provided a sustainability focus in the observation of company premises. The perspectives of these tools in general are economy, environment and social issues. Specifically the SBS provides company financial perspectives, company customer perspective, company internal perspectives, and company learning and growth perspectives. The major advantage gained by the study in using this method is the business vocabulary of these tools and the capability of these tools to easily map out the company to identify areas for observation. It was anticipated that using business language would motivate the participants to participate in the study and would facilitate clear communication.

Overall, the observation data that supplemented the interview method was solicited from the physical location of current records, semi-current records and non-current records, thickness of files, control books, types of file covers, arrangement, indexes, filing systems, filing

equipments, storage facilities, security systems and disaster plan documents, retrieval systems and policy documents.

#### **4.3.3 Secondary data**

According to Kothari (2004:111), secondary data refers to published and unpublished existing data. These data could be gathered from various sources. However, it is important to consider the reliability and authority of the sources, the suitability of the data to the study and the adequacy of the data for the study (Kothari 2004). For the purpose of this study the review of secondary data was carried out using books, journal articles, newspapers, magazines, research reports, thesis reports, conference proceedings, public statistics, databases and other electronic sources. The secondary data in this study were mainly used to base the study on the experiences of other studies in the field of records management and sustainability reporting, to identify variables for empirical data collection and to identify attributes of a proposed new model of a corporate records management system.

#### **4.4 Instrument pretesting and approval**

Monette, Sullivan and Dejong (1990: 11) defined pretesting as “a preliminary application of the data gathering technique for the purpose of determining its adequacy.” Powell (1985:103) noted that pretesting gives the researcher indications of ambiguous questions. In stressing the importance of pretesting instruments, Monette, Sullivan and Dejong (1990: 11) claimed: “it would certainly be risky and unwise to jump prematurely into data gathering without first knowing that all the data collection procedures are sound”. In general, one could argue that pretesting is the art of using other people or experts relevant for the study to critically judge the appropriateness, clarity, wording, sequence, and framing of questions before data collection. The benefits of pretesting instruments are: the refinement of the data collection instruments, the discovery of various problems of the instruments and the prediction of the meaningfulness of results (Powell 1985: 103).

The interview protocol and observation schedule were prepared in consultation with the researcher’s supervisors, and using the guideline provided by Kothari (2004: 118). The pretesting of instruments was completed in April 2004. The pretesting was conducted by practising information professionals, a business researcher familiar with the Iringa region

business environment, a library and information studies lecturer, researchers and a practising language professional. The pretesting sample was purposively selected. The sample of seven persons was carefully picked to collect comments from people such as information scientists, business administrators, professional researchers and English language practitioners. The participants in the pretesting the instruments are shown in the Table 5.

**Table 5: The participants in the instruments' pretesting and their occupations**

NAME	OCCUPATION
Mr. A. Mkocha	Ph.D. candidate, University of KwaZulu-Natal and former trading officer of the Iringa Region
Mr. S. Mwangi	Senior Records Manager, National Archives of Tanzania
Ms. T. Ndibalema	Researcher of the state of records management in the National Social Security Fund in Tanzania and Senior officer, Tanganyika National Library.
Ms. E. Ndenje	Lecturer, Department of Library and Information studies, Tumaini University, Dar Es Salaam Campus.
Ms. N. Kibakaya	Librarian, University of Dar Es Salaam, main campus
Mr. S. Mathew	Researcher, Gender Dimension, University of Dar Es Salaam.
Ms. K. Oberlander	Language Teacher International School of Tanganyika, Dar Es Salaam

The participants provided useful comments to improve the data collection instruments. The comments ranged from clarifying or combining to removing some questions in the instruments. The pretest participants' comments were used to make changes that were incorporated in the final draft of the instruments where necessary.

With regard to instrument approval, the researcher asked for the supervisors' final approval to use the refined instruments. The approval was granted in May 2004. The duration of the data collection process and the research permit are covered in the next section.

#### **4.4.1 Duration of data collection and research permission**

The research fieldwork was conducted between June and October 2004. First of all permission was sought from the Iringa Region Administrative Officer who in turn introduced

the researcher to the companies in the study population. After receiving a research clearance letter from the Vice-Chancellor of University of Dar Es Salaam, the Regional Administrative Secretary (RAS) wrote a letter allowing the researcher to access companies and offices for the purposes of the research in question. The research clearance allowed the researcher to obtain the list of companies from the Regional Trading Officer and access the companies in the study population.

#### **4.4.2 Percentage of participants who agreed to be interviewed**

All the units of analysis in the population agreed to be interviewed and the management of these companies approved the observation to be conducted in the companies. Despite the fact that the researcher encountered some problems during data collection, such as problems in getting appointments (see section 4.7.2), the 100% participation in responding to the interviews and observations implies the timeliness and practical nature of the study.

#### **4.5 Data collection procedures**

The researcher administered the interview protocol to the person who was responsible for records management issues in the companies under study. The reason for administering the interview schedules in person was the small size of the population and the close proximity of the companies in the study. It was also observed that to determine the actual situation on existing practices, the administering of protocols by the researcher was preferable. The researcher identified persons responsible for the records management system through a telephone introduction, established contact, and made an appointment for the interview.

During the personal introduction and establishment of rapport in the interview session the researcher gave the interviewee a copy of the interview schedule to build a common understanding of questions before starting the interview proper. The researcher wrote field notes in the interview protocol. The interviewee was also allowed to fill in the protocol while talking if desired. On finishing the interview, the researcher took back the protocol. Most of the participants were more comfortable when they also filled in the questionnaire while being interviewed. This technique increased the reliability of the answers because the researcher compared his notes and the notes made by the respondents. After comparing the field notes

and obtaining clear empirical data, the SPSS software was used to analyse categorical questions. The data analysis procedure is covered in section 4.6.

In the case of observation techniques, the observation schedule was used to collect data from physical locations and different departments and areas identified by the balance scorecard and the GRI in the companies under study. The researcher recorded all the data observed in the schedules that had two pages: the observation schedule and a blank page if more space was needed for a description of observed subjects. One schedule was administered to each company (see Appendix 7 for the observation schedule).

#### **4.6 Data analysis**

Both qualitative and quantitative methods of analysis were utilized. For the former, the SPSS was utilized for the set of closed questions. The SPSS was preferred for two main reasons: its powerful capability and the fact that the researcher was knowledgeable in using this software. The strength of SPSS can be seen in its capacity to accommodate large amounts of data, to provide descriptive statistics, to enable cross tabulation, to do simple hypothesis testing, and to create tables. Another advantage of the SPSS is its stability, as it has been in operation since the 1960s (Currall 1991). Figures for the chapter on data presentation were created using Excel software. The Excel software was used due to the researcher's familiarity with the software and the many options the software offers. The study also recognized the existence of the following data analysis software: SAS for large databases, STATA general purpose package, Nvivo and ATLAS for qualitative data analysis (Stanford University 2004). The researcher's knowledge of how to use and access these statistical packages was limited. Hence these software packages were not used in this study.

The open-ended questions in both the interview schedule and observation schedule were analysed using content analysis. According to Kothari (1992: 137), before the 1940s, content analysis was defined as quantitative analysis of identified and counted documentary materials of certain characteristics. However, since the 1950s, Kothari (1992: 137) further revealed that content analysis consists of analysing documentary materials and other verbal materials. Bailey (1994: 301) defined content analysis as:

A structured document analysis technique in which the researcher first constructs a set of mutually exclusive and exhaustive categories that can be used to analyse

documents, and then records the frequency with which each of these categories is observed in the documents studied.

The present study categorised data into key issues based on the purpose and objectives of the study and then analysed them manually to obtain the frequencies of categorical themes. Later the study used narration to supplement the presentation of frequencies. The results of the content analysis are described in text format to substantiate or refute what was said during the interviews.

#### **4.7 Evaluation of the methodology**

According to Clarke (1999: 1) evaluation is “judging the value, merit or worth of something”. The purpose of evaluation is to improve, to justify and to generalize the phenomenon in question (Robson 2000: 7). Based on the definition and the purpose of evaluation presented above, one could argue that in the context of research methodology, evaluation provides information to support and justify methods adaptation and techniques improvements for future research. The evaluation presented in this section is based on the replication, problems encountered during data collection process, the quality of data in terms of reliability and the validity and ethical issue.

##### **4.7.1 Replication**

The concern in the case of replication is the question as to whether or not the methods used in the study could be reproduced. Besides the problems faced during the data collection which are presented in section 4.7.2, it is believed by the researcher that the use of all nine cases in the population and the triangulation of survey (interview) and non-survey (observation) methods for data collection in this study yielded appropriate data for the purpose of this study and could be replicated in future related researches. The reasons for choosing interviews and observation are presented in sections 4.3.1 and section 4.3.2 and the procedures used to administer the instruments are explained in section 4.5. The interview protocol and observation schedule are in Appendices 6 and 7 respectively.

#### **4.7.2 Problems encountered during data collection**

There were several problems that were faced by the researcher during the data collection fieldwork. These problems included difficulties in getting a list of companies doing export business in Iringa region, bureaucratic procedures in getting a research permit, difficulties in getting appointments with the research informants for interviews and observation, and strict confidentiality rules in some companies. These problems are described in more detail.

First was the problem of getting a current and reliable list of companies that export from the Iringa region. The researcher visited the Tanzania Chamber of Commerce and Board of External Trade, neither of which had the list. Fortunately, the Tanzania Chamber of Commerce hinted as to where to get a current list of exporting companies in the Iringa region. Finally, with the directions from the Tanzania Chamber of Commerce the researcher visited the Iringa Regional Trading Office to obtain the list. However, even at this point, the process was not easy, since the trading officer Mr. Juma Bin Juma asked the researcher to bring a letter from the researcher's employer (University of Dar Es Salaam) to facilitate a formal process of accessing information in his office. This made planning for data collection difficult, even though the researcher had an informal list of exporting companies in the Iringa region during the proposal stage.

Procuring the letter itself entangled the researcher in another bureaucratic procedure. The researcher had to write a letter to the employer (University of Dar Es Salaam in this case) (see the Appendix 4), and this letter needed to go through the researcher's Head of Department and the University of Dar Es Salaam's research and publication department. The University's Research and Publication Department wrote a letter to the Iringa region RAS. This letter had to be signed by the Chancellor of the University (see Appendix 3). This process took almost two weeks. When the letter was presented to the RAS the researcher was directed to take it to the Chief Administrative Office (CAO) just to fulfil the regional protocol. The letter was presented to the CAO and it took three weeks to get the research clearance letter to present to companies in Iringa region. The process was cumbersome and this setback was not anticipated during the proposal period. The researcher's frequent follow up in these offices minimized the bureaucratic problem.

With regard to the problems of getting appointments with informants, taking into consideration the busy schedule of companies' management, it was very difficult to get appointments for interviews and to get a person to accompany the researcher through the companies' premises for observation. The researcher had no way of minimizing this problem, and had to follow the interviewees' schedules for interviews and observations. Fortunately, all the interviews and observations were done within the allotted time (June - October 2004) (see Appendices 2, 3 and 4 for research permit and time allotted to access companies in the Iringa region).

With regard to confidentiality, some companies had rules of not allowing any person from outside to talk to employees without permission from the company's top management. This restriction made the process of observation in some companies very long, because the researcher had to ask for permission before taking any steps. For example, when the researcher could not see where the computer storage devices were stored, he had to ask for permission to talk to computer users in the company. However, this problem was encountered in only two companies. Another incidence in the category of confidentiality was when the researcher was restricted by one company from visiting the production area. However, the confidentiality problem in these three companies was considered not significant enough to alter the final results of the study because the problem involved only two attributes in the instruments.

Finally, in some cases, the researcher encountered extremely unorganised records systems: for example, it was very difficult to observe some records as they were heaped in the dark attic of one company. Even though the researcher was able to use a flashlight, it was not easy to see exactly the amount of records and the system used in the attic. This is because records were mixed with other unused or depreciated company materials.

All these problems acted against a smooth data collection process. However, the study considered the problems insignificant in terms of hindering the revelation of the existing status of corporate records management systems in the Iringa region. Hence the empirical data to support the fulfilment of the purpose of the study of developing a model of corporate records management system was successfully collected with maximum respondents' participation and within the specified period of time allotted.



### 4.7.3 Reliability and validity of data

In most cases reliability and validity of data depend on the methodology used by the study and how it is applied. A review of the literature revealed a clear indication that there is no common criterion to measure the reliability and validity of data collected in every research project. However, each study needs to address the issues of reliability and validity of the data collected based on the specific circumstances of that study.

To start with, reliability is “the degree to which results are consistent across repeated measurements” (Carmines and Zeller 1994: 7). Bless and Higson-Smith (2000: 156) viewed reliability as an “estimate of the accuracy and internal consistency of a measurement instrument.” These two definitions suggest that reliability could be looked at in terms of the output of the instrument after administering it repeatedly, or at the input stage whereby the data collection instruments themselves are checked for reliability. Regardless, Carmines and Zeller (1994: 4) are of the opinion that it is not possible to have 100% error free instrument or results and the researcher concurs with this position.

In the context of this study therefore, both output related and input related reliability were attempted. The internal consistency and accuracy were addressed by careful design of the interview protocol, in which some questions cross-check the answers to previous questions. For example, question number six asked: “Does the company use computer(s) in various activities?” (yes/no), while question number seven asked the respondent to mention all the uses of computers in the company. One of the categories in question number seven was “computers are not used”. In this case the reliability of the answer to question number six was checked in question number seven (See Appendix 6 for details of question numbers six and seven). This method of testing reliability could be termed test-retest reliability as discussed by Bless and Higson-Smith (2000:127) and Huysamen (1994:120).

The method used to assure reliability of the output was the parallel form of reliability. Huysamen (1994:120) explained that the parallel test is two tests measuring the same thing by means of different content. In this case the triangulation of interview and observation in the data collection could be regarded as parallel tests of the same thing to ensure reliable end results.

It has been argued that an instrument could be reliable but not valid (Carmines and Zeller 1994: 4). This argument implies that in order to raise the quality of research, the two measurements need to go together. Therefore, a study's validity can be defined as "the degree to which a study actually measures what it purports to measure" (Bless and Higson-Smith 2000: 157). This definition suggests that validity is fundamentally a theoretical measure. It requires the study to show the efforts made to ensure that the data collected facilitates answering the study's research questions. There are four important types of validity, which are: criterion validity or predictive validity, content validity, construct validity, and face validity (Bless and Higson-Smith 2000; Huysamen 1994; Carmines and Zeller 1994).

According to Bless and Higson-Smith (2000:132) in order to measure validity in the instruments to be used, the tools could be compared to other successful tools used before. Following Bless and Higson-Smith (2000), in order to take advantage of criterion validity, the present study not only compared instruments with other previous studies' tools, but it also used previous studies by researchers such as Mnjama (2002), Ndibalema (2001) and Yusof and Chell (1999) as a guide to design data collection instruments. Additionally, Ndibalema (2001) participated in pretesting the data collection instruments used in this study.

In the case of content validity, Bless and Higson-Smith (2000: 131) suggested that the information to be gathered should cover different components of the topic under study. To address the issue, this study's instruments covered a great range of components of corporate records management systems, which are directly related to sustainability reporting. Bless and Higson-Smith (2000: 132) further suggested that experienced researchers in the field needed to be consulted to assess the content validity of the instrument. In the present case the pretesting of the instrument validated the content of the instruments. The pretesting of the instruments was covered in section 4.4 of this chapter.

Regarding construct validity, Carmines and Zeller (1994) argued for a theoretical relationship between concepts. The study integrated a grounded records life cycle with a newly publicized record continuum theory to derive attributes for data collection instruments. This ensured that the data collection instruments measured what they were supposed to measure.

Lastly, there is face validity, which is, according to Bless and Higson-Smith (2000:133), "...the way the instrument appears to the participant". In the context of this study the

appearance of the data collection instrument referred to the layout of the instrument. The instrument used by this study appeared to be too long in the eyes of respondents. Therefore in order to improve the face validity of the instruments the researcher created more categorical questions than open-ended ones to ensure saving of respondents' time. This also helped the instruments to measure what was supposed to be measured.

#### **4.7.4 Ethical considerations**

One of the research issues currently under debate is social research ethics. In general, the ethical concern in social research is considering moral principles in undertaking social research (Homan and Bulmer 1982; Burgess 1989). The efforts to follow moral principles are especially pertinent when doing research into private companies, which are surrounded by competition and other uncontrollable external variables. This study was conducted in private companies and among some companies doing the same business (see section 4.2 for the study population). The moral concerns for social research are: informed consent, confidentiality, anonymity and falsification of data (National Committee for Research Ethics in the Social Sciences and the Humanities 2001). To advance the ethical debate, Burgess (1989) listed research sponsorship, research relation and data dissemination as further ethical issues to be taken into consideration when conducting research. In other words, it is observed that the social researcher needs to address whether the participants' consent was acquired voluntarily, how confidentiality and privacy issues were addressed in conducting the research, how the relationship between the researcher and participant was built and how the information collected for the entire research is treated.

Homan and Bulmer (1982: 109) provided an excellent dialogue on consent in research. In the debate, Homan remarked that it is important to obtain voluntary consent from participants. He further noted that the participant needs to be informed of the purpose of the research and understand why the research is being conducted and for whom. He argued that this would support future cooperation with future researchers. On the other hand, Bulmer argued against informed consent and favoured covert research. He contended that so long as the research is scientific and is used to advance knowledge, there is no need to ask for consent.

The current study concurred with Homan's view and asked for companies' consent. The researcher obtained letter of introduction from the Regional Administrative Officer (see

section 4.4.1 for research permission issues). After obtaining the letter the researcher conducted a telephone interview to establish rapport and brief the respondent on the importance of this study as well as the benefits of records management and sustainability reporting for exporting companies. During the conversation, the informant for the company was also identified. During the same exchange, the issue of why research was being conducted was discussed. Two main issues were pointed out in this case, the issue of fulfilling the researcher's academic work requirements and the contribution it could make to sustainable development at the corporate level in Tanzania. Though it was difficult to get appointments with some participants, finally, all the interviewees in the population participated voluntarily.

With regard to the issues of confidentiality and data dissemination, the researcher assured the respondents that the data collected was for this academic work only and would not be used for other purposes. The researcher also assured the respondents that the report would not reveal the names of the companies in association with investigated variables, but rather the variables used to answer research questions would be reported in general, representing the situation in the exporting industry in the Iringa region. As advised by Huysamen (1994: 178) the respondents and their work places were treated with respect, dignity and courtesy in this study. As a result, there is ongoing discussion on future co-operation between the researcher and some participant companies. Finally, the study also honestly acknowledged any help and all the works borrowed or cited from others.

#### **4.8 Summary**

This chapter presented the research design of the study. It also listed the population of companies involved in the study. The chapter provided the unit of analysis and described data collection instruments. The interviews and observation processes were described in detail. The method used to obtain secondary data was also presented. The chapter discussed data collection procedures and data analysis methods. Finally, this chapter presented an evaluation of the methodology used. In the evaluation, the issues discussed were replication, problems faced during data collection, reliability and validity, and ethical considerations pertinent to this study.

## CHAPTER FIVE

### Data presentation

#### 5.0 Introduction

The purpose of this study was to develop a model for a corporate records management system with special reference to sustainability reporting in the Iringa region of Tanzania. In order to fulfil the general purpose, the specific objectives of this study were:

1. To examine the level of education attained and records management training pursued by the heads of records management systems in the companies.
2. To identify sustainability reporting systems records series in the companies.
3. To examine companies' awareness of the ISO 9000 and ISO 14000.
4. To examine the processes involved in the creation of corporate records related to sustainability reporting systems.
5. To explore challenges posed by IT in the corporate records management systems.
6. To assess the facilities and procedures available and used for the storage and control of corporate records.
7. To determine the retrieval tools and distribution methods used in corporate records systems.
8. To determine the transfer and disposal of inactive corporate records.
9. To determine the nature of appraisal and retention schedules for corporate records.
10. To identify availability of corporate records management policies and top management support for corporate records management.
11. To draw conclusions, make recommendations and propose a model depending on the study findings

Based on the objectives above, the study answered the following research questions:

1. What are the highest education levels and records management training of heads of records management systems?
2. What records are kept in the corporate sustainability reporting systems?
3. Are the companies aware of the ISO 9000 and ISO 14000 systems?

4. What are the procedures in creating records for sustainability reporting?
5. What are the IT challenges for corporate records management systems?
6. What are available facilities to store records and control records from sustainability reporting system?
7. What are the tools used to retrieve and distribute corporate records?
8. How are records from sustainability reporting transferred and disposed of?
9. What are the appraisal procedures and retention schedules for corporate records?
10. What are the management support and record management policies in the companies?
11. What are the conclusions, recommendations and the ideal model for corporate records management systems in the Iringa region?

This chapter presents the empirical findings of the study. It describes the existing status of corporate records management systems in the Iringa region of Tanzania. As noted in the chapter on methodology, the data presented in this chapter represents the exporting industry in the Iringa region and is not specific to individual companies in the study population. The empirical data presented in this chapter were mainly collected from the interviews and supplemented with observation. The interview data are presented in the form of figures, tables and text. The observation data are presented in the form of text. The data presentation in this chapter follows the arrangement of the specific objectives and their subsequent research questions as listed above. The data regarding characteristics of respondents and sustainability reporting are also presented. Mostly the data are grouped based on specific objectives and research questions answered. They do not follow the sequence in the interview protocol or the observation schedule.

## **5.1 Characteristics of respondents**

As noted in the introduction section, the characteristics of the respondents are not part of the specific objectives of the study, however, it was felt necessary to present these data due to the fact that the background of persons responsible for the records management system could partly explain the records management practices in the companies under study. Therefore, the study sought to describe the characteristics in terms of job title of the heads of corporate records management in the Iringa region of Tanzania.

The group of questions that sought background information regarding the job title, education and training of heads of records management formed the first section of the interview protocol (see Appendix 6 for the interview protocol). The first question in the interview protocol sought to find out the job titles used by companies for the heads of records management sections. The head of the corporate records management department was also the informant for the interview protocol of this study. In the first question, the respondents were asked to choose one among seven categories, and were also given the opportunity to fill in more categories, which were not mentioned (see the Appendix 6 for the interview protocol). Table 6 shows the job titles of the heads of corporate records management in the Iringa region.

**Table 6: The title of the persons responsible for records management**

<b>TITLE</b>	<b>FREQUENCY</b>	<b>PERCENT (%)</b>
Administrative officer	7	77.8
Information manager	1	11.1
Corporate information manager	1	11.1
<b>TOTAL</b>	<b>9</b>	<b>100</b>

The results in Table 6 show that the majority, seven (77.8%), of nine exporting companies in the Iringa region used an administrative officer to head their record management systems processes. One company used “information manager” as the job title for the head of records management. Another one used “corporate information manager” as the job title for the head of the records management system.

In order to address specific objective number one and answer research question one, Question 1.2 in the interview protocol asked for the highest education level attained by respondents and Question 1.3 inquired about records management training for the heads of corporate records management. Table 7 summarizes the responses to question 1.2 which dealt with the highest education level.

**Table 7: Highest education levels of respondents**

EDUCATION LEVELS	FREQUENCY	PERCENT
Form four	1	11.1
Diploma	3	33.3
First degree	2	22.2
Postgraduate diploma	1	11.1
Honours degree	1	11.1
CPA	1	11.1
<b>TOTAL</b>	<b>9</b>	<b>100</b>

The interviews, as revealed in Table 7, indicate that the majority of heads of records management systems in the companies in the Iringa region had higher education<sup>5</sup>. This conclusion comes from the total of two (22.2%) with a degree, two (11.1%) with a postgraduate diploma and honours respectively and one (11.1%) who selected the 'other' category and specified the educational qualification as a Certified Public Accountant (CPA) as shown in Table 7 above. The total of these responses is five, while three (33.3%) diploma holders and one (11.1%) form four leaver have lower education, but still headed the records management systems.

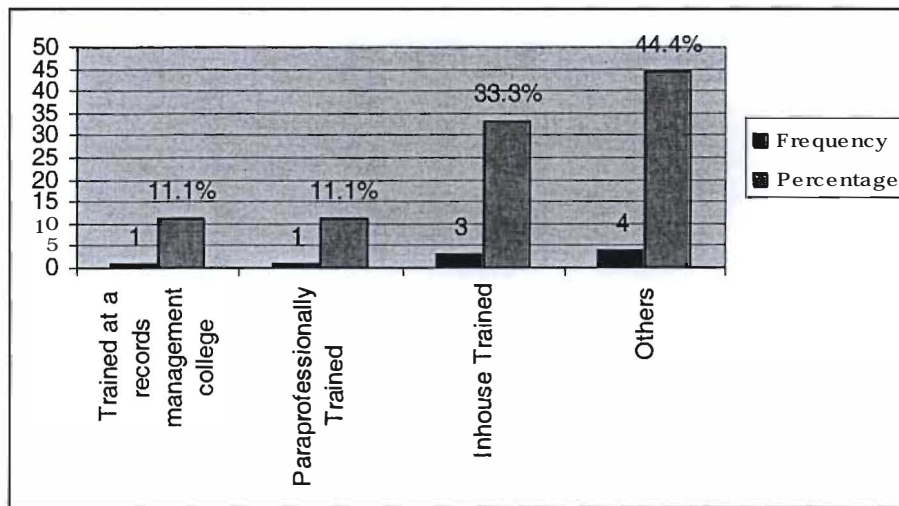
To establish records management training part of the objective number one, the respondents were asked in Question 1.3 to tick all categories of training that the head of the records management system in their company had received. The question was important since skills and knowledge of records management are required to head a corporate records management system. Figure 4 shows the results.

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<sup>5</sup> Form one up to ordinary diploma is considered lower education in this study while first degree and above is considered higher education



**Figure 4: Distribution of records management related training of respondents**



As clearly indicated in Figure 4, four (44.4%) of the respondents selected the “other” category. The details provided in the other categories revealed that three out of four were trained in bookkeeping and one was not trained. Three (33.3%) were in-house trained, one (11.1%) was trained at a records management college and one (11.1%) was paraprofessionally trained. Besides fulfilling specific objective number one, the background data regarding education and training presented above is also considered relevant to explain some of the records management processes as presented later in this chapter and in the chapter on data interpretation.

## 5.2 Sustainability records and reporting

In order to fulfil specific objective number two as listed above, the interviewees were asked to identify all the sustainability related records series in the company. The records series in the interview protocol categories were extracted from the Global Reporting Initiative (2004) sustainability indicators. The researcher converted most of the sustainability indicators to records series in order to describe the internal records management system for sustainability related records. For clarity, Question 2.1 of the interview protocol is separated into four categories: environment related records series, economic related records series, social related records series and combined social and economic records series. The main reason for splitting the data collected through Question 2.1 of the interview protocol was to shorten the table to a

manageable size. The shortened tables also simplify the comparison of different sustainability related attributes.

### 5.3 Records series

In question 2.1 (See appendix 6 for the interview protocol) the respondents were asked to choose from the categories provided in the interview protocol and tick all the sustainability records series kept by his or her company. Tables 8, 9, 10 and 11 summarizes the results of the sustainability records series. Respondents were allowed to select more than one category.

**Table 8: The environment related records series**

ENVIRONMENTAL RECORDS SERIES	TOTAL	PERCENT
Energy bill records	9	100
Energy expenditure records	9	100
Fuel records	9	100
Transportation cost records	9	100
Material balance records	9	100
Suppliers' records	8	88.9
Production records	8	88.9
Water bill records	8	88.9
Chemical uses records	6	66.7
Sustainability meetings records	6	66.7
Waste water quantification records	5	55.6
Land use records	5	55.6
Environmental regulations records	4	44.4
Environmental policies records	4	44.4
End of life recycled materials records	3	33.3
Waste water composition records	3	33.3
Environmental guidelines records	3	33.3
Emissions quantification records	2	22.2
Emissions composition records	2	22.2
End of life reused materials records	2	22.2
Biodiversity records	2	22.2

Table 8 indicates that more than half of the respondents kept environment related records. Twelve out of twenty one environmental records series scored above 50%.

**Table 9: The economic-related records series**

<b>ECONOMIC RECORDS SERIES</b>	<b>TOTAL</b>	<b>PERCENT</b>
Tax records	9	100
Financial accounting records	9	100
Worker benefits records	8	88.9
Production records	8	88.9

Table 9 shows that the majority (more than 80%) of companies in Iringa region maintained all economic related records in their companies.

**Table 10: The socio-economic related records series**

<b>ECONOMIC AND SOCIAL RECORDS SERIES</b>	<b>TOTAL</b>	<b>PERCENT</b>
Contribution to hospital/dispensary building records	6	66.7
Contribution to community education development records	6	66.7
Contribution to community sports facilities records	6	66.7
Contribution to water infrastructure building records	5	55.6
Contribution to community leisure facilities records	5	55.6
Contribution to road infrastructure maintenance records	4	44.4

Table 10 indicates that more than half of the companies kept the combined economic and social records series in their companies.

**Table 11: The social related records series**

<b>SOCIAL RELATED RECORD SERIES</b>	<b>TOTAL</b>	<b>PERCENT</b>
Contribution to human rights issues records	1	11.1
Improvement of working environment records	7	77.8
Employee appraisal records	9	100
Human resource list records	9	100
Staff development records	9	100
Reward records	9	100
Staff training records	9	100
Gender issues records	9	100

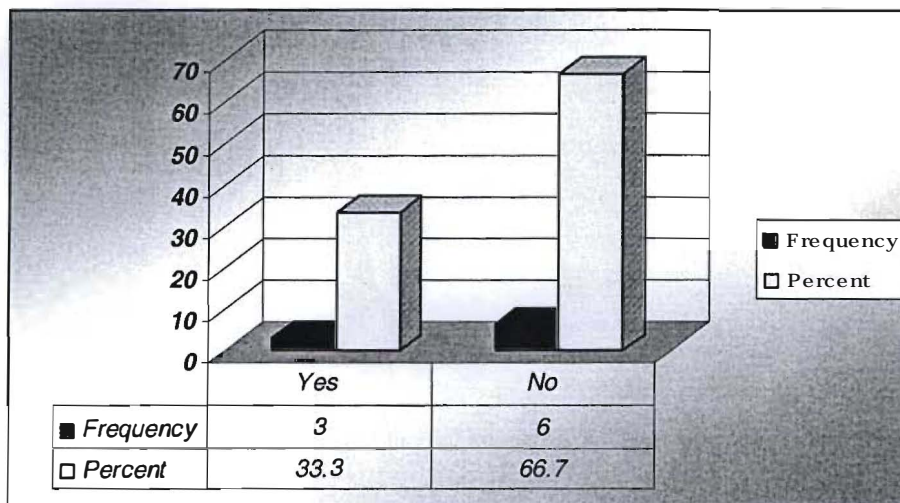
Table 11 shows that all companies kept the social related records series in the companies except for the human rights contribution related records.

To summarize, Tables 8, 9, 10 and 11 demonstrated that most exporting companies in the Iringa region kept and maintained sustainability related records series. The results show that the majority kept environmental related records. However, environmental related records which scored low are significant for sustainability issues. Moreover, most of the companies maintained economic related records and social contribution records. The empirical data also showed that almost all the companies kept social related records.

#### 5.4 Sustainability reporting

In order to link sustainability records series and sustainability reporting, Question 2.2(a) asked if the companies published annual sustainability reports. The main reason for this question was to find out if sustainability reporting was a motive for keeping sustainability records series. Figure 5 illustrates the incidence of publishing sustainability reporting results.

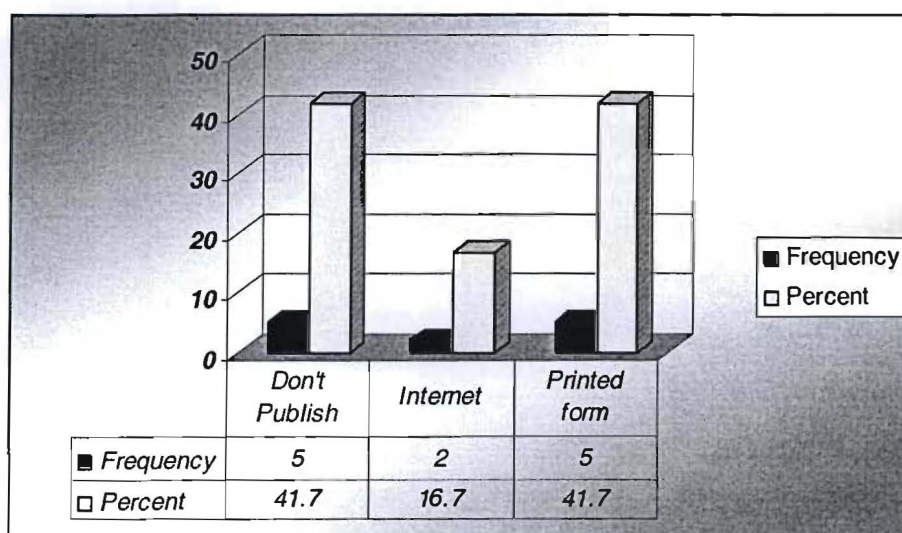
**Figure 5: Incidence of publishing sustainability reports**



It is evident from Figure 5 that most of the companies in the Iringa region did not publish annual sustainability reports. Only three (33.3%) published sustainability reports. The interview results were verified by observation whereby it was also found that only three companies out of nine had sustainability reports.

As a follow-up, to verify the reliability of Question 2.2(a) and to confirm the common understanding of the sustainability reporting phenomenon, Question 2.2(b) asked about the type of sustainability report published by the companies. The respondents had an opportunity to choose more than one way to describe the publishing of sustainability reports. Figure 6 summarizes the results of the forms of sustainability reports published.

**Figure 6: Form of sustainability reports published**



As can be seen from Figure 6, five (41.7%) responses showed that the companies did not publish, while two (16.7%) published their sustainability reports on the Internet and five (41.7%) published theirs in the form of printouts. The interview results above are contrary to the results of the observation. Observation showed that three companies published sustainability reports. Two of the three companies published on the Internet and in printed form while one published only on the Internet, which contradicts the five (41.7%) who claimed that they produce a printed form of sustainability report as shown in Figure 6.

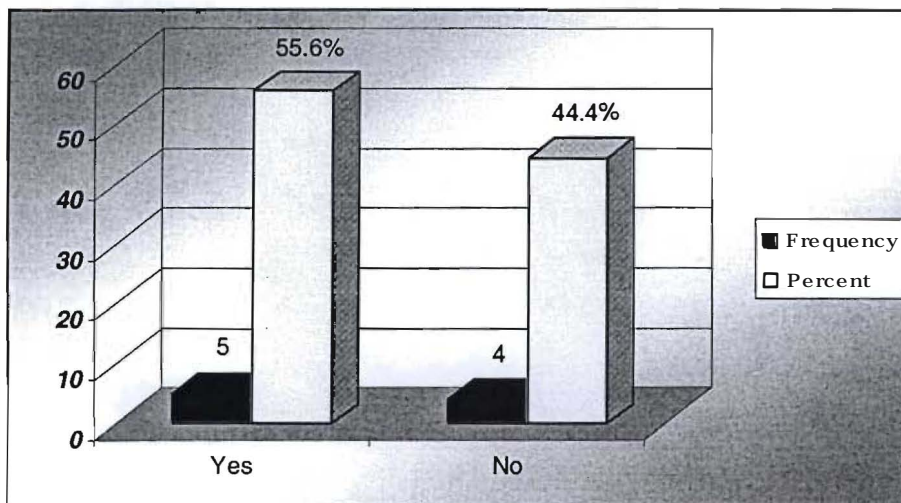
In order to fulfil specific objective number three and reveal the awareness of the standards which cross-cut records management and sustainable development, Question 2.3 asked if the companies were aware of the existence of the ISO 9000 (quality standards) and ISO 14001 (environmental management standards). The results showed that the majority, seven (77.8%)

were not aware of the existence of the two important records management and sustainability related standards and only two (22.2%) companies were aware.

## 5.5 Record creation, capture and Information Communication Technologies

To fulfil specific objectives number four and number five listed in the chapter one, this section presents answers to research questions corresponding to these specific objectives. The study research questions corresponding to specific objective number four and five are research question number two and seven. Question 2.4 in the interview protocol asked if the companies had standardized forms for creating records. Figure 7 provides the summary of the answers.

**Figure 7: Availability of standardized forms for creating records**



It is evident from Figure 7 that five companies (55.6%) had standardized forms for creating records while four (44.4%) did not have. Basically, question 2.4 in the interview protocol meant to cover paper based records.

### 5.5.1 Computer use in the companies

In order to determine IT challenges faced in private corporate records management, it was pertinent to identify the level of computer use in the companies under study. Question 2.5



asked respondents to disclose if they used computers in their companies. The findings indicated that all nine (100%) companies used computers in various activities.

In order to explore the various uses of computers in the companies, question number 2.6 required the respondents to identify all the uses of computers in their companies. Table 12 summarizes the uses of computers in the companies in the study population.

**Table 12: Uses of computers**

COMPUTER USES	TOTAL	PERCENT
E-mail	9	100
Word processing	9	100
Spreadsheet	9	100
Internet access	9	100
World Wide Web	7	77.8
Local area network (LAN)	6	66.7
Scanning paper records to create computer images or texts	6	66.7
Database management services	6	66.7
Statistics	6	66.7
Electronic document imaging	5	55.6
Document management system	5	55.6
Document management software	4	44.4
Geographical information system	4	44.4
Electronic records management system	4	44.4
Graphics	4	44.4
Computer aided dispatch (including optical disk)	3	33.3
Open archival information system	3	33.3
Intranet	1	11.1

Table 12 clearly indicates that the highly used categories were e-mail, word processing, spreadsheet and Internet which are used by all nine (100%) companies. One (11.1%) company used intranet for its internal communication. The results from the observation schedule confirmed the interview results whereby six companies had a LAN configuration as illustrated in Table 12.

Question 2.8 sought to reveal the level of ownership of a website. The ownership of websites was important for exposing the challenges of managing websites as records and also to cross-

Having been trained is one step; the next step is managing the records. The following section deals with managing paper and electronic records.

### **3.3.6 Managing paper and electronic records: a hybrid approach**

To identify records and record generation activities in the corporate context, records managers and archivists need to conduct functional analysis and process analysis (Shepherd and Yeo 2003:58). Functional analysis is the mapping of an organization's activities using a top down approach. In functional analysis, activities are normalized to the smallest required level where records are created (Shepherd and Yeo 2003: 58). An example of normalized activity could be the management of a human resource in the organization as the highest level of the subsystem. The human resource management function could be decomposed to the recruitment process and the recruitment process to vacancy advertisement and this followed by hiring and contract signing (Shepherd and Yeo 2003). In this example, records could be created or received from every section of the process highlighted above. They could be created or received in management of human resources, in the advertisement of vacancies, in the recruiting process and in the contracts processes. The process analysis which could be presented by flow charts is basically a step by step scrutiny of process with identical value that could be recorded and captured in the overall corporate records management system. Both functional analysis and process analysis could be utilized by records managers to plan and implement paper or electronic records (Shepherd and Yeo 2003: 62).

Writing on the same topic, Erlandsson (1996: 21) provided a total enterprise analysis view when he argued that:

Modern business structures do not necessarily have to be organized around functions. They are often arranged cross-functionary. Therefore, one must identify those functions, processes, activities and transactions to which the records bear evidence.

Important as it is, Erlandsson's (1996) description seems not to diverge much from Shepherd and Yeo's (2003) explanation. Therefore, this study took into consideration functions, processes and activities in the analysis of records series creation or receipts in the companies in this study.



### 3.4 Models and modelling approaches

The purpose of this study was to develop a model of a corporate records management system that focuses on sustainability reporting. This section therefore reviews modelling in general in order to place the study within widely agreed models and modelling approaches. The main purpose for model contextualization in this section is the fact that sometimes models can mean different things to different disciplines and people. For instance sometimes the term model is used interchangeably with the term theory. This underscores the obvious need for contextual explanation of the word “model” in this study.

Miller (1991: 51) explained that “model building has been an integral part of social science for a long time.” In other words one could claim that the use of models in the social sciences is not a new phenomenon. Collins (1976: ix) revealed that the notable increased use of models in the social sciences took place in the 1960s. There are several definitions of the word “model”. Hestenes (1996: 8) defined model as being a representation of a structure in a physical system and/or its properties. Underwood (1996:148) defined a model as “anything which represents those parts of reality considered essential for some purpose.” The key words in the definitions above are: “reality representation”, “physical system representation” and “purpose”. The model constructed in this study therefore, is the representation of the reality of corporate records management system as a major issue to achieve the purpose of efficient and effective sustainability reporting. Since models are representations of realities and there are many types of realities, there is a need to highlight different types of reality or physical systems representation. Next, attention is briefly directed to the types of models.

The types of models as provided by MacKay (2003) include:

- Conceptual models that are qualitative in nature and help to highlight important connections in real world systems and processes. Conceptual models are sometimes used as a step in the development of more complex models.
- Physical analog models, which have characteristics that are similar to key features of more complex systems in the real world.
- Mathematical models, which are developed mathematically by solving certain equations of a system to determine the behaviour of the system over time or throughout space.

examine the relationship of publishing sustainability reports on the Internet to the ownership of websites. Figure 8 summarizes the results.

**Figure 8: Incidence of companies having websites**

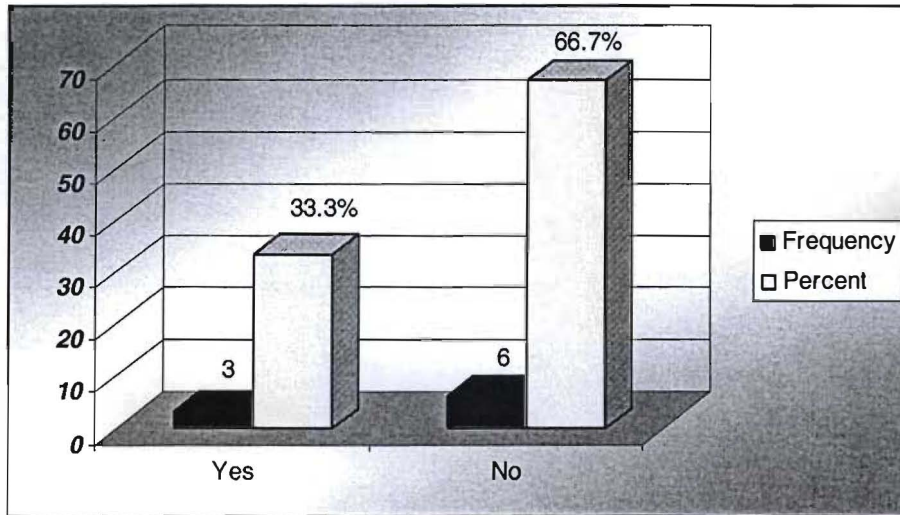


Figure 8 shows that six (66.7%) companies did not own a website while three (33.3%) did.

In order to have a standardized process of electronic records creation and reduce unnecessary creation of records, it was important to examine the use of templates in the companies in this study. Therefore question number 2.10 asked if companies had a template for creating electronic records. Figure 9 summarises the findings.

**Figure 9: Use of templates to create electronic records**

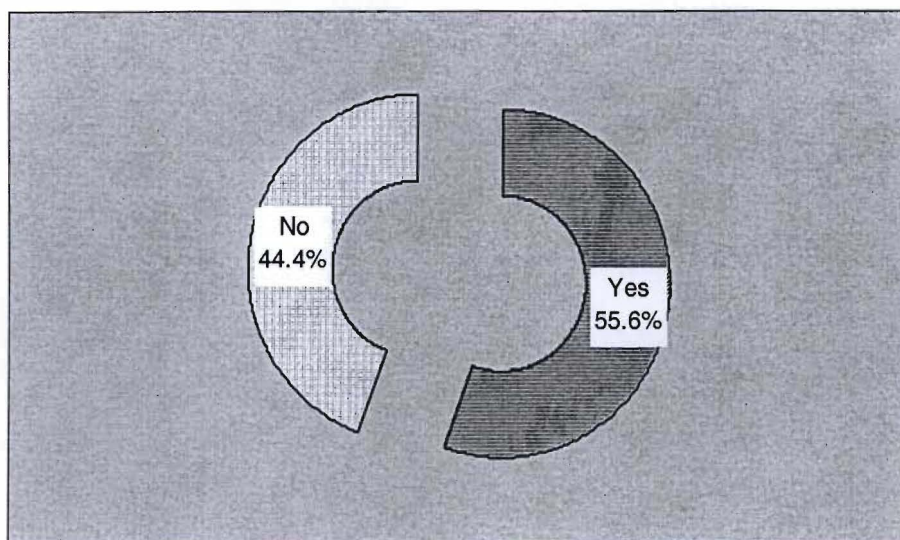


Figure 9 shows that five (55.6%) used templates in creating electronic records, while four (44.4%) did not use templates.

It was also important to reveal the actions of companies when receiving or creating paper or electronic records. For this reason, question 2.11 addressed the issue of what the company did when receiving or creating records. The respondents were allowed to select more than one category. The findings are presented in Table 13.

**Table 13: Company actions when receiving or creating paper and electronic records**

COMPANY ACTIONS	TOTAL	PERCENT OF CASES
Register all the records received or created	4	57.1
Create indexes for all created or received records	1	14.3
Link all the created records to other records	2	28.6

Table 13 indicates that four respondents (57.1%) registered all the records received or created. Only one respondent (14.3%) created indexes for records created or received. Additionally, two respondents (28.6%) indicated that their companies linked all records created or received to other records.

Recently, e-mail communication has become a significant generator of electronic records. Therefore, its management in the records management system is pertinent. Question 2.13 sought to reveal how e-mail correspondence is captured in the records keeping systems. The respondents had an opportunity to choose “other” as well as several given categories. Table 14 summarizes the results for capturing e-mails in the records keeping system.

**Table 14: Capturing e-mail in the records keeping system**

CAPTURING E-MAIL	TOTAL	PERCENT OF CASES
Classify e-mail	1	11.1
Add metadata	1	11.1
Print e-mail	7	77.8
Save in the server	2	22.2
Save in the electronic storage media	4	44.4

From Table 14, it is evident that most of the companies, seven (77.1%) printed e-mail, while one (11.1%) response shows that the company classified e-mail and added metadata respectively.

In order to capture and manage e-mail, companies need a detailed policy to guide the process. Question number 2.12 asked about the availability of policy on creating and receiving e-mail. Figure 10 summarizes the findings.

**Figure 10: Incidence of a company e-mail policy**

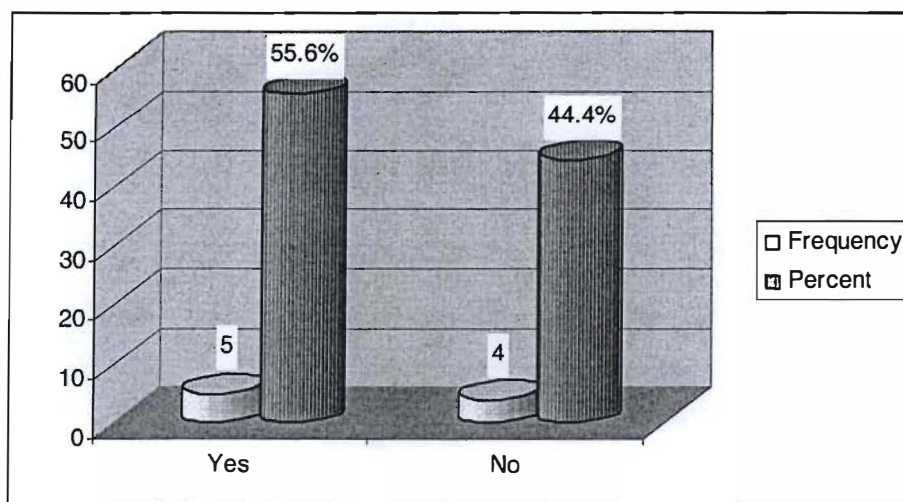
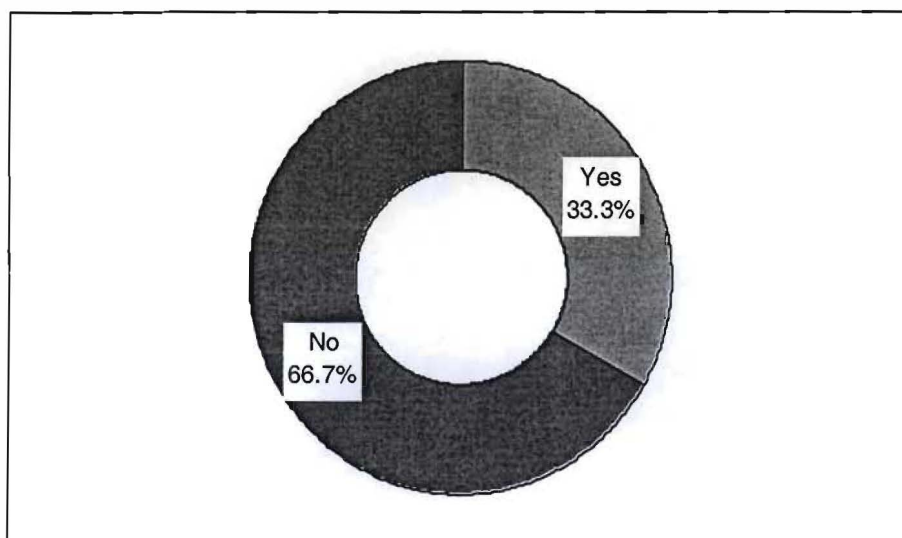


Figure 10 indicates that five (55.6%) of the companies had a policy for creating and receiving electronic mail, while four (44.4%) of all nine companies in the study population did not.

### 5.5.2 Metadata

In order to preserve the evidential value of electronic records, metadata is important when capturing and managing electronic records. Question number 2.14 asked about the application of metadata in the companies when creating or receiving electronic records. Figure 11 summarizes the findings.

**Figure 11: Metadata use for electronic records**



It is clear from Figure 11 that the majority, six (66.7%) did not add metadata to electronic records, while fewer, three (33.3%) did. The interview results in Figure 11 above contradict the observation results, which showed that only two companies (22.2%) added metadata to their records.

Surprisingly, when asked in question 2.15 what kind of metadata was used, only one respondent selected the “other” category and specified that the company had a template, which required the record creator to provide the name of the author, subject and date of creation of electronic records. The overwhelming majority, eight (88.9%), revealed that they did not add metadata.

The researcher explored further the use of metadata due to its importance in capturing and managing electronic records. In this regard, question 2.16 required the respondents to specify the method of application of metadata in the companies. The respondents were allowed to choose more than one category. Table 15 summarizes the findings.

**Table 15: Ways of adding metadata to electronic records**

WAYS OF ADDING METADATA	TOTAL	PERCENT OF CASES
We do not add metadata	7	77.8
The metadata information is entered manually	1	11.1
Metadata information is attached separately with records	1	11.1
Metadata is incorporated into the record	1	11.1

It is evident from Table 15 that the majority, seven (77.8%), of the responses indicated that they did not add metadata. The above Table 15 also reveals that one (11.1%) response showed that metadata information were added manually, one (11.1%), that metadata information was attached separately with records, and one (11.1%), that metadata information were incorporated in the record.

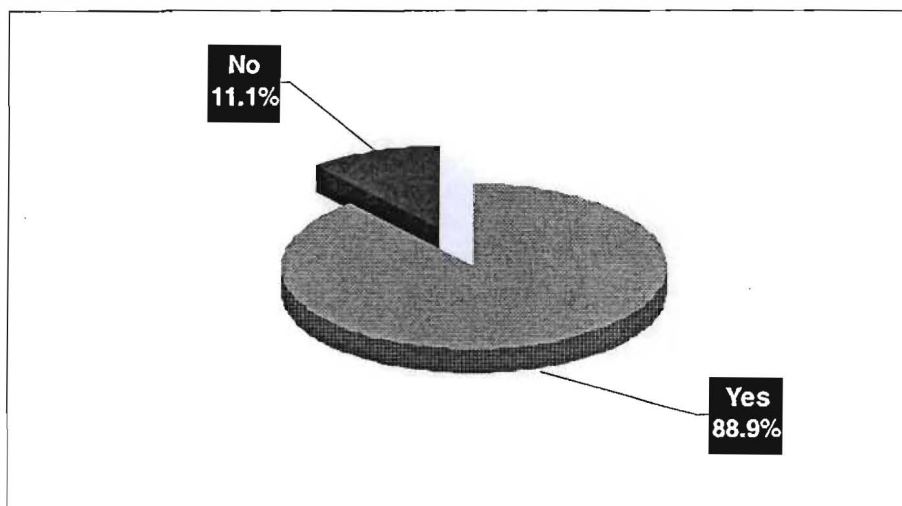
With regard to specific policies for electronic records specific, four (44.4%) respondents indicated that they had specific policies for access and use of electronic records, while an equal number, four (44.4%) did not have a policy for electronic records management. Three (33.3%) responses showed the availability of storage policies and two (22.2%) responses indicated the availability of creation policy. Table 16 summarises the results of the electronic records management specific policies.

**Table 16: Electronic records management policies**

ELECTRONIC RECORDS POLICIES	TOTAL	PERCENT OF CASES
Creation	2	22.2
Storage	3	33.3
Access	4	44.4
Use	4	44.4
No policy	4	44.4

The study also sought to reveal if authorized persons created records. The results of question 2.17 indicate that in eight companies (88.9%), records were created by authorized persons while only one (11.1%) company indicated having some records that were not created by authorized persons. Figure 12 summarizes the findings.

**Figure 12: Response to whether the creators of all records were authorized**





## 5.6 Records control procedures and storage facilities

This section presents information on records control procedures in terms of being centralized, decentralized or combination of centralized and decentralized. Furthermore the section demonstrates records control procedures in terms of file tracking procedures in the companies. The section also describes the records storage facilities used in the companies.

### 5.6.1 Records control procedures

Several questions in the interview protocol were aimed at fulfilling objective number six, that is to assess the facilities and procedures available and used for the storage and control of records. It was firstly important to reveal the record control system in the companies. Therefore, Question 3.1 asked whether the company records control system was centralized, decentralized or a combination of the two. The answer to this question informs the model developed in this study on the most preferred record control systems in the companies under study. Table 17 summarizes the results of records control system operating in the companies under study.

**Table 17: Distribution of records control systems in the companies**

RECORD CONTROL SYSTEM	TOTAL	PERCENT OF CASES
Centralized	2	22.2
Decentralized	3	33.3
Combination of centralized and decentralized	4	44.4
<b>TOTAL</b>	<b>9</b>	<b>100</b>

It is apparent from Table 17 that four (44.4%) companies used a combination of centralized and decentralized records control systems. Three (33.3%) companies used a decentralized and two (22.2%) companies used centralized systems.

To extend the records control procedure it was pertinent to expose the records tracking system in the companies. Therefore Question 3.2 sought to determine the file tracking system. Table 18 summarizes the findings.



**Table 18: File tracking systems in the companies**

FILE TRACKING SYSTEM	TOTAL	PERCENT OF CASES
The files are controlled using movement books	4	44.4
The files are controlled using file movement cards	1	11.1
Files are tracked electronically	1	11.1
Other	4	44.4

From Table 18 above it is obvious that many companies, four (44.4%) used movement books, and the same number, four (44.4%) applied other methods, which were not in the categories given. Additionally, one used movement cards and one tracked files electronically. The specification of the other category revealed that two companies had a person responsible to follow up the records without using any tracking instrument. One company in the other category used a naming system and number allocation to files. The final response to the other category revealed that the company used a situational method in the file tracking or control system. In the case of the situational method, it is assumed that the company did not have a specific tracking system but rather used any method available at any particular time.

### **5.6.2 Records storage facilities**

Storage facilities are very important in a records management system. They often determine what kind of system is in place. For instance, the storage facilities could explain the records retrieval system of the company. Therefore Question 3.3 in the interview protocol sought to highlight the records storage facilities in the companies. The respondents were allowed to tick more than one category.

The findings showed that all nine (100%) companies used folders to store their records. The majority of respondents, eight (88.9%), used a combination of steel and wooden cabinets and they used diskettes to store electronic records. Additionally, seven (77.8%) responses used only steel cabinets, kept records on shelves, used CDs, and kept records at individual workstations. The least common method of records storage was rewritable CD (CD-R) and DVD. The observations results showed that all nine companies used floppy diskettes to store their electronic records and had wooden cabinets for their paper based records. The

observation results also revealed that six companies used CDs to store records, and eight companies had steel cabinets.

### 5.6.2.1 Loss of electronic and paper records

A records management system needs to prevent or minimize records loss. Therefore, Question 3.12 sought to demonstrate if companies had experienced any loss of electronic records or paper records. The indication of records loss was important as the model developed had to adapt the existing loss control system, suggest a new loss control system or combine the new and the old loss control system. Figure 13 shows the findings.

**Figure 13: Incidence of electronic and paper records loss**

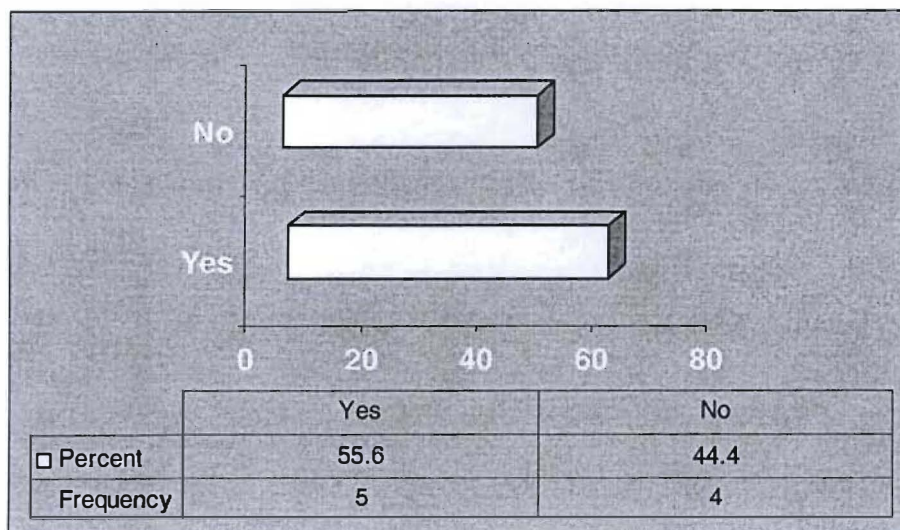


Figure 13 indicates that five (55.6%) companies had already experienced a loss of their records, while four (44.4%) companies had not experienced any loss of records.

As a follow-up and to verify internal reliability of answers to Question 3.12, companies were asked about the cause of the loss. This question was important in order to reveal what they thought caused the loss while at the same time cross-checking the answers to the Question 3.12. The findings from Question 3.13 were consistent with Question 3.12: four companies had not experienced any loss and five did experience records losses. With regard to the

causes, all the companies indicated computer failure as the major cause. The companies that experienced records loss did not indicate any loss of paper based records.

**5.6.2.2 Policies and procedures for electronic records migration**

Regardless of record losses, it is pertinent for companies to have policies to protect records from being altered or manipulated. Question 3.14 sought to gain information on the policy for altering and manipulating records. Figure 14 shows the findings.

**Figure 14: Availability of policies to protect records from being altered or manipulated**

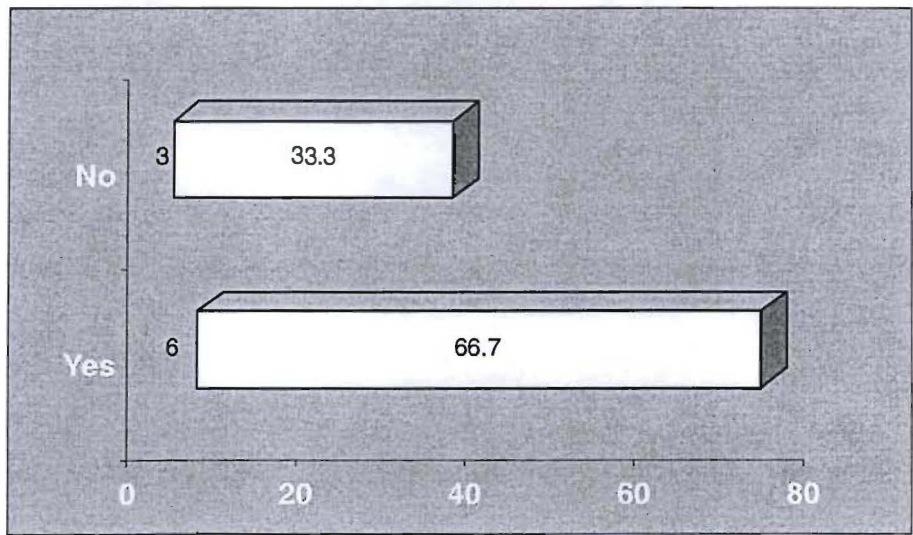


Figure 14 shows that six (66.7%) companies had policies to protect records from alteration and manipulation. However, contrary to the interview results in the Figure 13, only three companies showed a coordinated records management policy that covered electronic and paper based records and records related activities in the observation.

Due to the increased use of computers in many companies, it was felt important to reveal corporate policies that guided the migration of records from old software to new software. Therefore question 3.15 intended to collect data on the availability of policies for record migration. Figure 15 shows the findings.

**Figure 15: Availability of policies for migration of electronic records from old to new software**

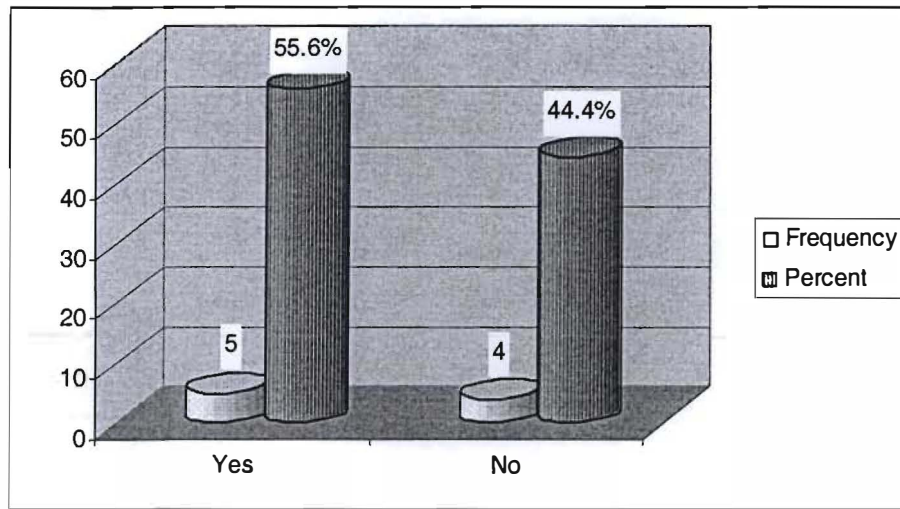
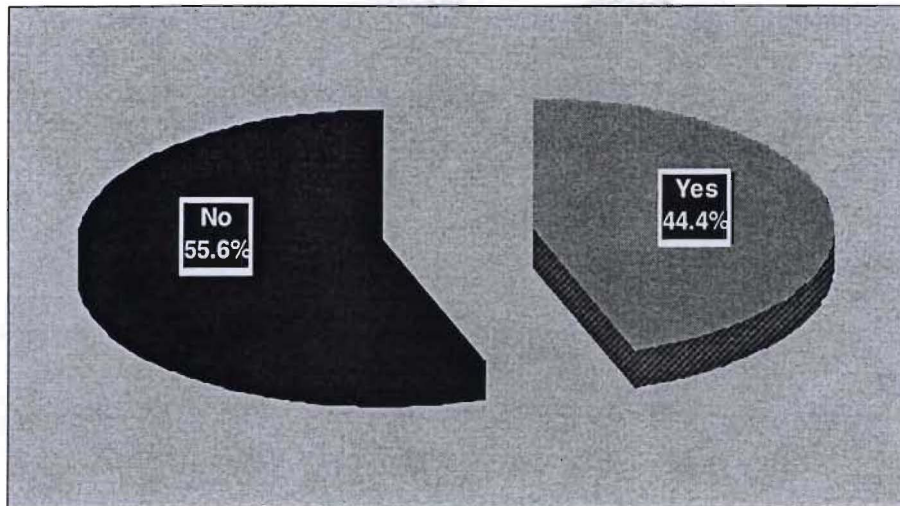


Figure 15 indicates that there were policies to guide the migration process of electronic records from old software to new software. Five (55.6%) had the policies while four (44.4%) did not have the policies.

It is important to have policies to guide records management activities. It is also imperative to have clear procedures to direct records migration processes and other corporate records management related activities. Therefore question 3.16 sought to reveal the availability of procedures for records migration. Figure 16 shows the findings.

**Figure 16: Availability of procedures for records migration processes**



From the findings in Figure 16, it is evident that more than half, 55.6% of the companies did not have written procedures for electronic records migration even though they had policies for records migration. Less than half 44.4% had written procedures for records migration from old software to new software.

### **5.6.2.3 Transfer of records to record centres**

Records with less administrative value need to be transferred to records centres. It was pertinent for this study to demonstrate the procedures for transferring records to a records centre and the programmes for semi-active records. Question 3.4 therefore, addressed the issue of records transfer to a records centre. The results showed that five (55.6%) of the companies transferred their records in boxes, which were accompanied by a document listing each box's holdings. While transferring the records to records centres only two (22.2%) showed that they retained one copy of the list of all the records in the transferred box. Two (22.2%) declared that they did not use a record centre. One (11.1%) selected the other category and specified that he took the folders directly to the archive. The interview results above differ from the observation results. Observation showed that only one company had a programme for semi-active records. Other companies did not have formal semi-current

records programmes, but rather had the informal mounting of boxes of records in less used sites of the companies.

#### 5.6.2.4 Vital records programme

The importance of vital records is well known. The legal existence of any company depends heavily on vital records such as business licence records, products formula records, contracts, human resource, credit application records, property lease records, insurance records, banking records and the like. It is important, therefore, for companies to protect their vital records by establishing a vital records programme. Question 3.17 in the interview protocol addressed the corporate vital records programme. In this question respondents could give more than one response. Table 19 summarizes the findings.

**Table 19: Companies' vital record programme description**

VITAL RECORDS PROGRAMME	TOTAL	PERCENT OF CASES
The company has a vital records programme	1	11.1
Vital records are duplicated and the two copies are kept separate, safely	8	88.9
The company has installed extinguishers and sprinkler systems	8	88.9
The company has emergency telephone numbers	2	22.2
There is a designated person responsible for company security	6	66.7
The disaster management plan has been simulated and communicated to everybody in the company	-	-
The company has installed fire detectors in the records storage systems	-	-

Table 19 indicates that the majority of respondents, eight, (88.9%) kept duplicate record copies in a separate, secure place. Eight (88.9%) companies also installed extinguishers and sprinklers in the records storage areas. Six (66.7%) companies had a designated person responsible for company security, while two (22.2%) indicated that they had emergency



telephone numbers in case of an accident. Not one company had a disaster control plan or fire detectors. Observation revealed a slightly different picture and observation showed that only two out of nine companies had fire extinguishers in the records storage areas, one company had a sprinkler and none had fire detectors. With regard to emergency telephone numbers, only one company had very clear and visible emergency telephone numbers for the police and internal fire section. With regard to a vital records programme and a disaster management plan, only one company showed an integrated written vital records programme and disaster management plan. Four companies practised storage of duplicate vital records and four indicated that they stored the duplicate copies of their vital records remotely in their head offices in different cities or countries.

### 5.7 Records retrieval tools, distribution methods and classification

The records management filing system facilitates efficient retrieval and distribution of records to users. In order to fulfil specific objective number seven, Question 3.5 addressed the companies' filing systems to determine the system common to all exporting companies in the Iringa region. Table 20 summarizes the types of filing systems of companies in this study. More than one response could be given.

**Table 20: Companies' filing systems**

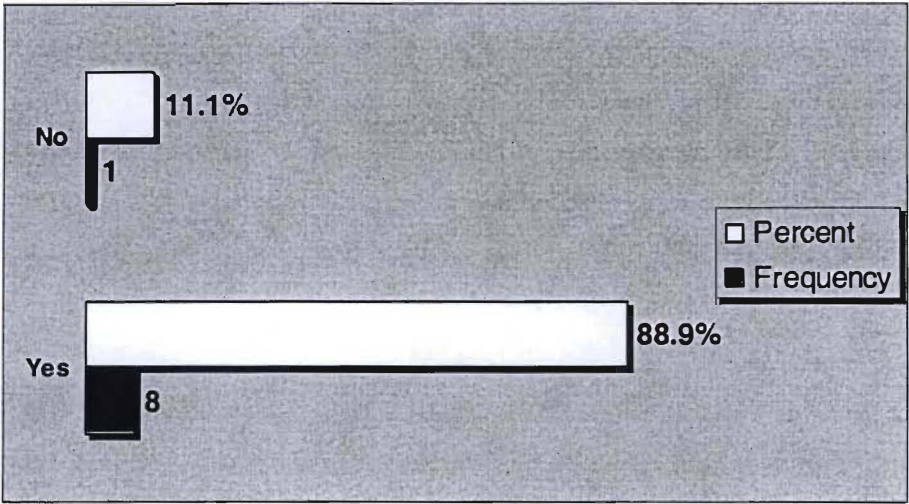
FILING SYSTEMS	TOTAL	PERCENT OF CASES
The company's filing system is numerical	1	11.1
The company uses alphabetical filing system	1	11.1
The company uses alphanumerical filing system	3	33.3
The filing system is subject based	4	44.4
The filing system is functional	4	44.4
The filing system is chronological	2	22.2
The filing system is sequential	1	11.1
Other	1	11.1

The companies used different filing systems. The most common, four, (44.4%) are subject based and functional based filing systems. Three (33.3%) used alphanumerical filing systems

and two (22.2%) used chronological systems. One (11.1%) used numerical, another one (11.1%) used alphabetical and one (11.1%) used a sequential filing system. Additionally, one respondent selected the 'other' category and specified the use of subject with dates relevant to the records. The respondent further gave the following example of one of the company's records series: Fire report 20042008. The example was further explained to stand for: Fire reports as a subject, 2004 year created and 2008 the year the records would be disposed of. The observation results showed that the dominant filing system was functional, which was used by five companies. Two companies used numerical and alphanumerical systems. However, it was observed that companies used different systems in different sections or departments. It is therefore assumed that this is what influenced the answers in the interview regarding the filing systems. The interpretations of these results are presented in the chapter six.

The filing system is normally made to effectively support users in retrieving records. Consequently, Question 3.6 sought to reveal the effectiveness of filing systems in supporting users' functions. Figure 17 summarizes the results.

**Figure 17: The effectiveness of filing systems to support users' functions**

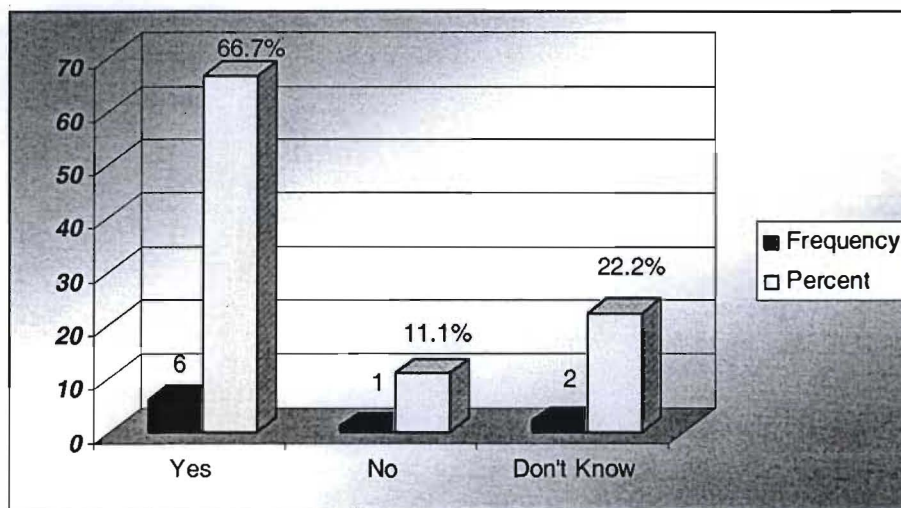




From Figure 17 it is clear that eight (88.9%) operating filing systems effectively support the users' functions while only one (11.1%) indicated that the filling system is not effectively supporting the users' functions.

For efficiency and effectiveness, a filing system could be supported by records finding aids. Question 3.8 intended to reveal the companies' findings aids. Figure 18 summarizes the empirical findings.

**Figure 18: The availability of finding aids**



As indicated in Figure 18, six (66.7%) respondents indicated that their companies had finding aids, while only one (11.1%) showed that their company did not have finding aids and two (22.2%) indicated that they did not know.

For finding aids to support the users' properly, the finding aids need to be accessible to users. Therefore it was important to ask Question 3.8 to reveal the accessibility of finding aids. Figure 19 shows the empirical results.

**Figure 19: Accessibility of finding aids**

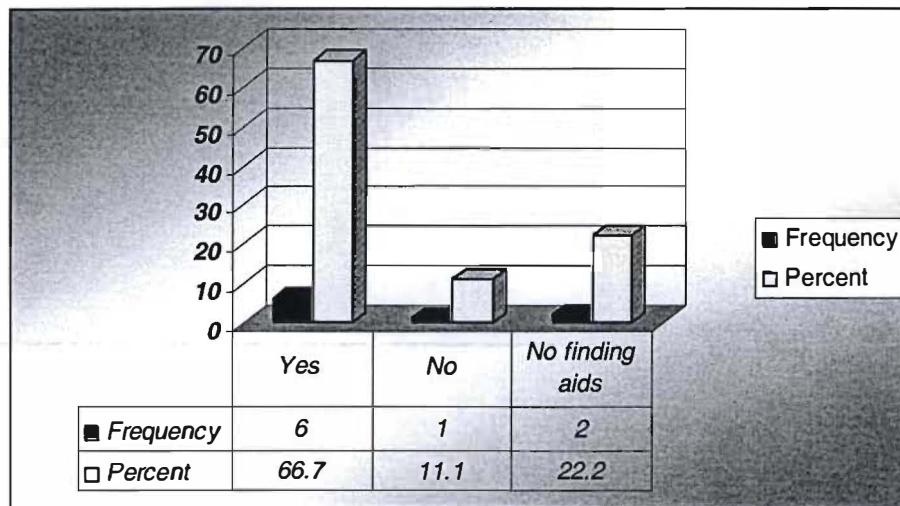


Figure 19 shows that the majority, six (66.7%), of companies had accessible finding aids, while one (11.1%) indicated that the finding aids were not accessible. Two (22.2%) revealed that there were no finding aids. The interview results in Figure 19 contradict the observation results that revealed that only two companies had open and visible file lists as records findings aids tool.

In addition to finding aids the provision of other assistance is important in relation to helping users to allocate records promptly and to simplify the records allocation process. An example of what the other assistance is, is the use of secretaries to locate information for users. Question 3.9 sought to reveal other assistance provided to users. Figure 20 summarizes the findings.

**Figure 20: Other forms of assistance to record users**

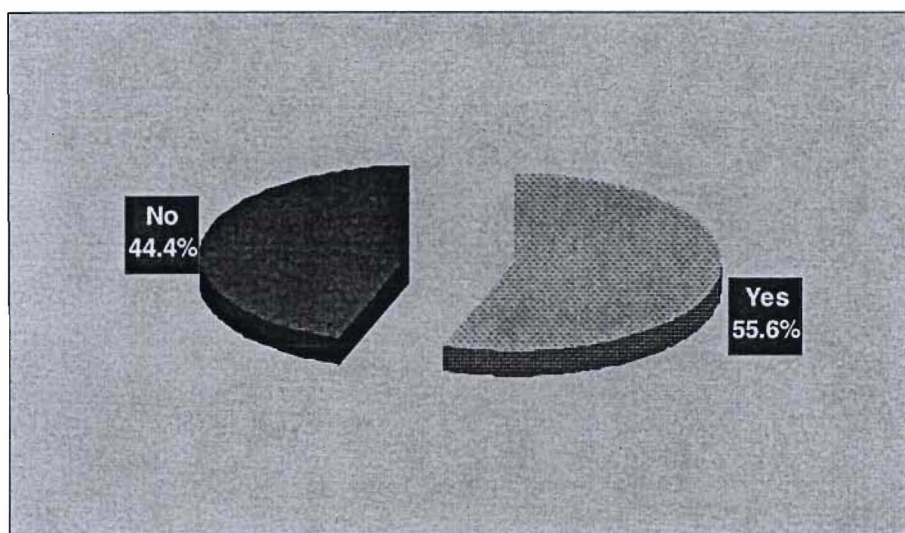


Figure 20 shows that 55.6% provided other assistance, for instance, secretaries to locate records for users, while 44.4% did not provide any other assistance.

A company's filing system, finding aids and other forms of assistance could explain the amount of time used to locate records when needed. Therefore it was imperative to establish the time taken to retrieve information from paper based records in Question 3.11. Table 21 presents the findings.

**Table 21: Time taken to retrieve information from paper based records**

TIME FOR RECORDS RETRIEVAL	RESPONSE	PERCENTAGE
Less than 5 minutes	3	33.3
6 – 10 minutes	6	66.7
11 – 15 minutes	-	-
16 – 30 minutes	-	-
31 – 60 minutes	-	-
61 and above	-	-
I don't know	-	-
<b>TOTAL</b>	<b>9</b>	<b>100.0</b>

The majority (66.7%) of companies retrieved information from paper based records within 6 - 10 minutes while the rest retrieved recorded information in less than five minutes.

**5.8 Transfer and disposal of corporate records**

To fulfil specific objective number eight, that is to determine transfer and disposal of inactive corporate records, first it was important to find out if the files were regularly closed in the companies. Therefore Question 4.1 solicited data to determine file closure practices in the companies. Figure 21 below provides an overview of the file closing status in the companies under study.

**Figure 21: The response to whether files were regularly closed**

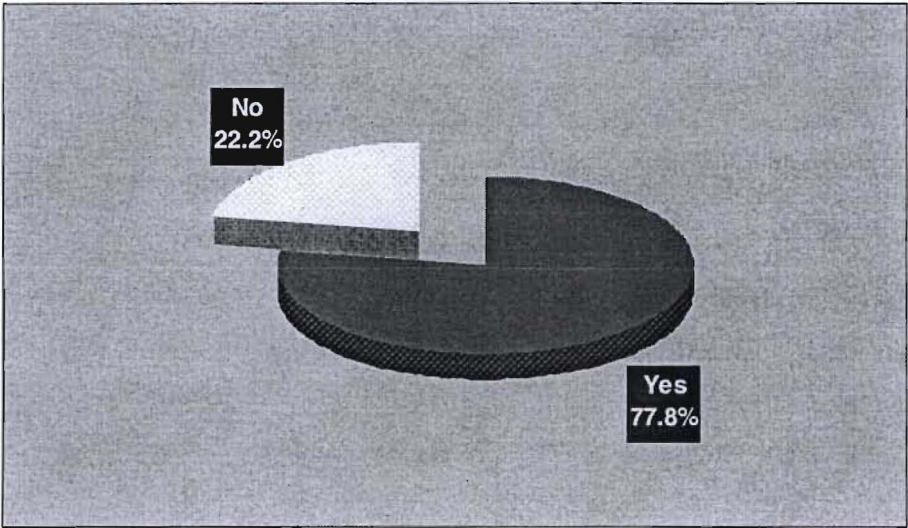


Figure 21 above indicates that 77.8% companies closed their files regularly while only, 22.2% did not regularly close their files.

The treatment of closed non-current records is as important as that of current records. Therefore it is imperative for companies to have programmes for non-active records. Companies were asked in Question 5.1 to describe their approach to inactive records. The respondents were also asked to choose more than one category. Table 22 summarizes the findings.

**Table 22: Approaches to managing inactive records**

<b>INACTIVE RECORDS MANAGEMENT APPROACHES</b>	<b>TOTAL</b>	<b>PERCENT OF CASES</b>
No programme for inactive records	4	44.4
No separate handling for inactive records	2	22.2
Person responsible for records coordinates and handles inactive paper and electronic records in the office	2	22.2
Separate archival records from active and semi-active records	2	22.2
Store archival records in a separate secure area	3	33.3
Develop series description of archival records	1	11.1

It is evident from Table 22 above that most companies, four (44.4%), did not have a programme for their inactive records. Three (33.3%) of the responses showed that the company's approach to inactive records was to store archival records in a separate secure area. Two (22.2%) responses showed that the companies did not have a separate handling system for inactive records. Another two (22.2%) responded that the head of corporate records management system coordinated and handled inactive paper and electronic records in the offices. Two companies (22.2%) separated archival records from active and semi-active records. Only one (11.1%) company developed series of description of archival records. The simple observation also revealed the same results as in Table 19, that only one company had a very well described and organized onsite archives. The observation also revealed that there is unprofessional treatment of inactive records in almost all companies except companies with international affiliation. Worse enough one company dumped inactive records in the attic.

## **5.9 Appraisal and retention schedules for corporate records**

This section investigates appraisal processes of records. Empirical findings in terms of appraisal time, appraisal guidelines in the companies in this study are described. The section

also demonstrates corporate records inventories findings and their use. Finally the section presents results of retention schedules findings.

### 5.9.1 Appraisal of corporate records

It is important to appraise records in order to determine retention schedules and disposal procedures. In order to address specific objective number nine, the study determined first the inventories of corporate records. Questions 4.5 through 4.7 revealed the corporate records inventories processes. The appraisal process was determined by Questions 4.8 and 4.9 (See appendix 6 for the interview protocol).

With regard to inventories processes, question 4.5 sought information on electronic records inventory in the companies. Figure 22 summarizes the findings.

**Figure 22: Inventoring of electronic records**

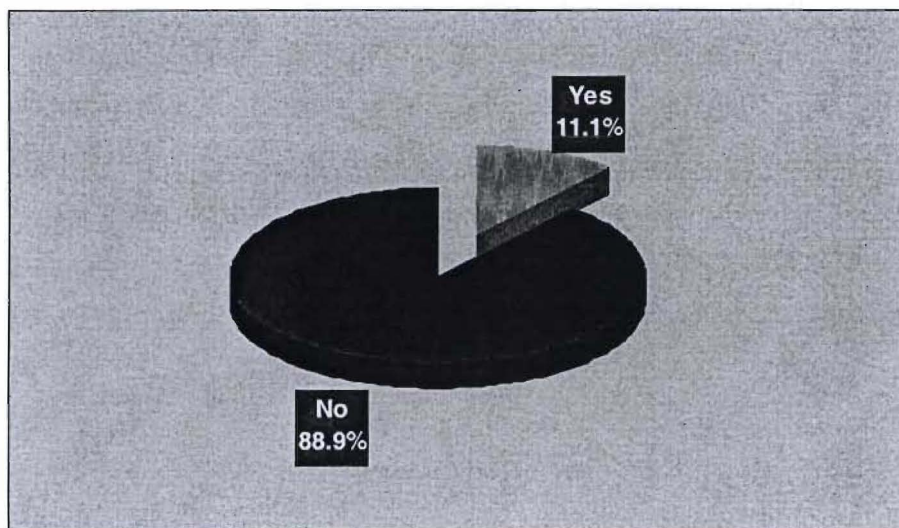
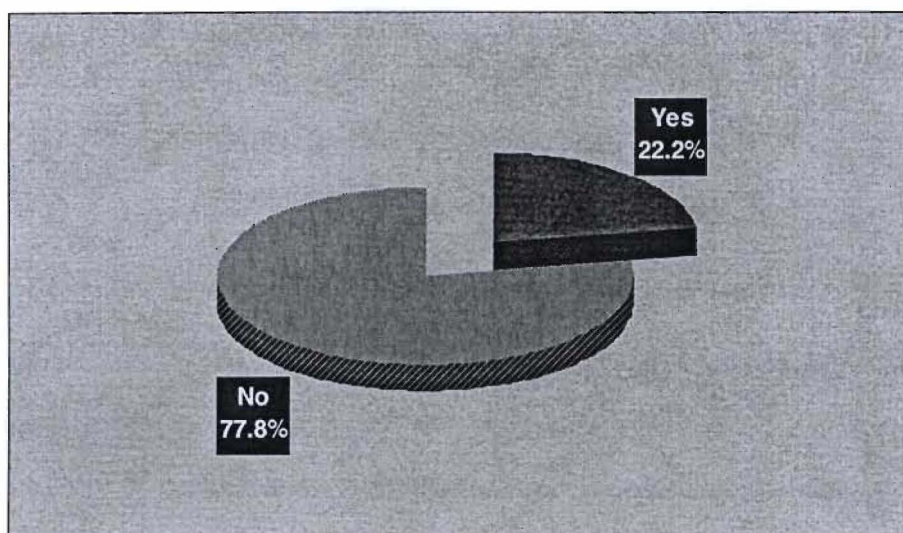


Figure 22 above indicates that 88.9% companies under study did not inventory their electronic records, while 11.1% conducted electronic inventory of its electronic records.

To determine the inventory in the paper based records Question 4.6 was asked. Figure 23 provides the summary of the results.



**Figure 23: Inventoring of paper based records**



As illustrated in the Figure 23, majority of the companies seven (77.8%), were not conducting records inventory, while only two companies (22.2%) inventoried their paper based records.

Question 4.7 sought to examine the use of records inventories by the companies. The respondents were allowed to tick more than one category. Table 23 provides the summary of the findings.

**Table 23: The use of inventories in the companies**

COMPANIES' USE OF INVENTORY	TOTAL	PERCENT OF CASES
No inventory	6	66.7
Disposal of unnecessary inactive records	1	11.1
Created inactive records storage area	-	-
Improved management of files	2	22.2
Developed needs assessment	1	11.1
Developed formal records management plan for paper based records	1	11.1
None of the above	1	11.1

Table 23 shows that six (66.7%), of the companies did not have inventories. Two (22.2%) companies with inventories used them to improve management of files, one (11.1%) used the inventory to dispose of inactive records, one (11.1%) response showed that the company used the inventory to develop needs assessment, one (11.1%) response indicated an inventory was used to develop a formal paper based records management plan and one (11.1%) response showed nothing regarding the categories of records inventories provided in question 4.7.

The companies had different methods of conducting records appraisals. Question 4.8 sought to establish if companies had appraisal guidelines and schedules for disposal of records. The respondents were allowed to fill on more than one category. Table 24 summarizes the findings.

**Table 24: Appraisal guidelines and disposal schedules**

APPRAISAL GUIDELINES AND DISPOSAL SCHEDULES	TOTAL	PERCENT OF CASES
The company has guidelines for electronic records appraisal	2	22.22
The company has guidelines for paper based records appraisal	-	-
The company has a disposal schedule for electronic records	1	11.1
The company has a disposal schedule for paper based records	3	33.3
None of the above	4	44.4

Table 24 indicates that the largest number, four (44.4%), did not have guidelines for electronic records disposal, guidelines for paper based records appraisal, schedules for electronic records, or disposal schedules for paper based records. Table 25 also indicates that three (33.3%) companies had disposal schedules for paper based records and two (22.2%) had guidelines for electronic records appraisal. Only one (11.1%) had a disposal schedule for electronic records.



It was considered necessary also to determine the appraisal time process of company records. Question 4.9 revealed when the process of appraisal took place in the companies under study. Table 25 summarizes the findings.

**Table 25: Stage at which records appraisal takes place**

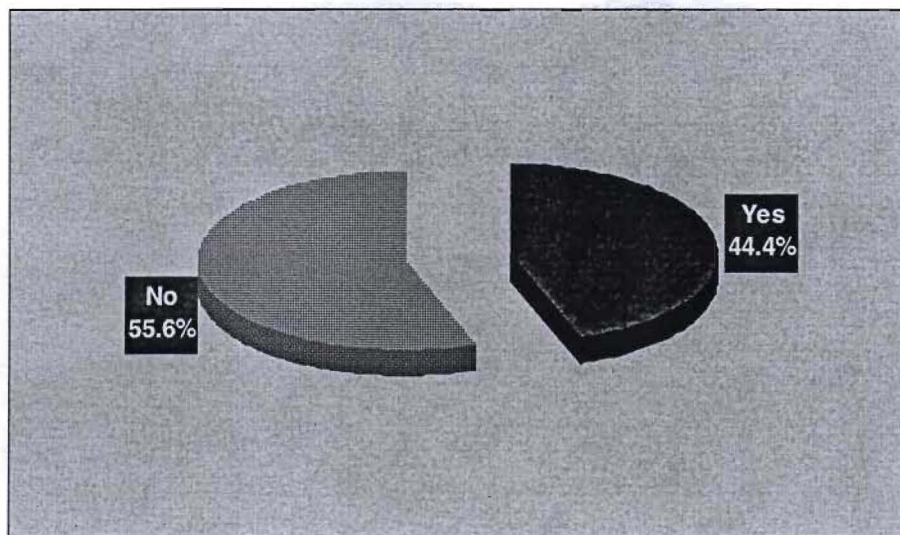
RECORDS APPRAISAL TIMING	RESPONSE	PERCENTAGE
The appraisal process takes place before the creation stage	-	-
The appraisal process of paper based records takes place during the end of the records life cycle	3	33.3
None of the above	6	66.7
<b>TOTAL</b>	<b>9</b>	<b>100</b>

As indicated in Table 25, the majority, six (66.7%), did not conduct appraisal during the creation or pre-natal stage of the records or during the non-current phase of paper based records. However, as shown in Table 25, one third (33.3%) of the companies appraised their paper based records at the end of life of the records.

### **5.9.2 Retention schedules**

The retention schedules are a very important aspect in the records management system. Therefore, question 4.2 sought to reveal the availability of retention schedules in the companies under the study. Figure 24 summarizes the findings.

**Figure 24: Availability of retention schedules**



From Figure 24 above, it is evident that more than half, 55.6%, of the companies did not have retention schedules, while 44.4% did. However, the observation results showed that only one company had written retention schedules for their records.

When asked to react on the statement that schedules were generally up to date, four (44.4%) indicated agreement with this statement, while three (33.3%) did not have any opinion, one (11.1%) disagreed and one (11.1%) showed that it did not apply.

With regard to whether the retention schedules were sufficiently detailed, three (33.3%) agreed, three (33.3%) did not have any opinion, two (22.2%) disagreed and one (11.1%) said it did not apply.

Regarding the retention period being the right time, one (11.1%) strongly agreed, four (44.4%) just agreed, three (33.3%) did not have any opinion and one (11.1%) said it did not apply. Table 26 summarizes these results.

**Table 26: Respondents' opinions as to the characteristics of the schedules**

CHARACTERISTICS	Strongly agree		Agree		No Opinion		Disagree		Strongly disagree		Does not apply	
The schedules are generally up to date	-	-	4	44.4%	3	33.3%	1	11.1%	-	-	1	11.1%
The schedules are sufficiently detailed	-	-	3	33.3%	3	33.3%	2	22.2%	-	-	1	11.1%
The retention period time is right	1	11.1%	4	44.4%	3	33.3%	-	-	-	-	1	11.1%

When asked to recommend improvements for retention schedules, only two interviewees made recommendations for their companies. The first one recommended a ten years' retention schedule due to the reference value of most of their records. The second recommended that their company develop a subjective retention schedule based on the priorities of the records.

#### **5.10 Managerial issues for corporate records management systems**

In order to fulfil specific objective number ten of the study it was important to determine the extent of management support for corporate records management systems. This was pertinent because the smooth running of any records management system depends heavily on general support from top management. Section six of the interview protocol addressed the management issue to support the recommendations for the model in question.

To start with, the section revealed the presence of records committees in the companies. Question 6.1 asked if the companies had records management committees. Figure 25 below shows the results.

**Figure 25: The presence of records committees**

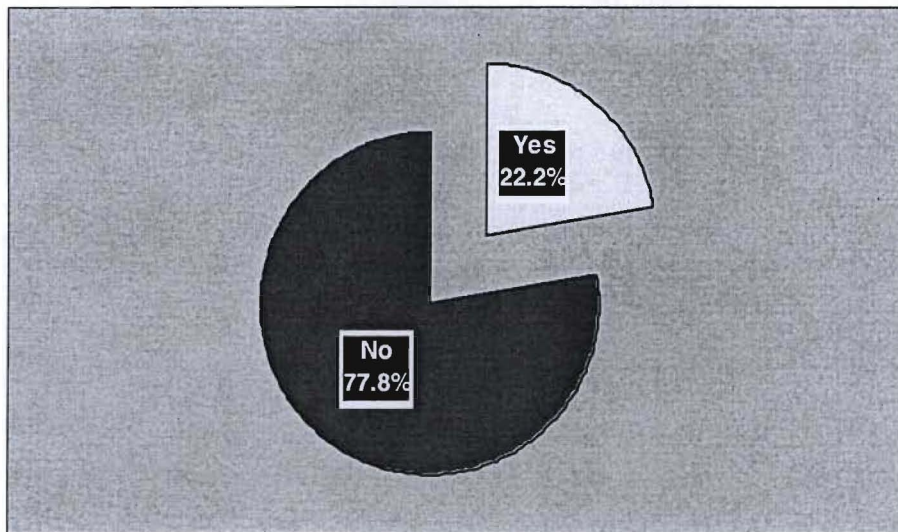


Figure 25 indicates that the majority, 77.8% of the companies did not have records committees to discuss records matters in the companies.

To verify the reliability of Question 6.1 and also to reveal the number of meetings of the records committee, question 6.2 asked how often the records committee met. The results showed that most, seven (77.8%), companies did not have a records committee and that the two (22.2%) with the records committees specified that the committee met only once a year.

For the companies with records committees it was important to reveal the ways in which the records committee was involved in the records management in the company. Question 6.3 provided eight categories of records committee involvement for respondents to choose from. Respondents were allowed to choose more than one category. Table 27 summarizes the findings.

**Table 27: The records committee's involvement in corporate records management**

RECORDS COMMITTEE INVOLVEMENT	TOTAL	PERCENT OF CASES
No records management committee	7	77.8
The committee is not active at all	-	-
The committee develops and helps to implement company's records management policies	2	22.2
The committee reviews and approves the disposition of records	1	11.1
The committee establishes records management plan for the company	-	-
The committee reviews and supports budget request for records management department in the company	1	11.1
The committee has regular meetings with records staff and company top management	1	11.1
The committee meets regularly to discuss company's records management issues	1	11.1

Table 27 indicates that the majority, seven (77.8%) of the companies did not have a records management committee and in the two (22.2%) which did the committee developed and helped to implement company records management policies. One (11.1%) response indicated that the committee reviewed and approved the disposition of records. One (11.1%) revealed that the committee reviewed and supported budget requests for the records management department in the company. Another response, one (11.1%) showed that the committee had regular meetings with records staff and company top management and the committee met regularly to discuss the company's records management issues.

With regard to the company records management policies, Question 6.5 requested the respondents to describe what was included in the policy documents or to indicate if the policy was not available in the company. Table 28 shows the findings.

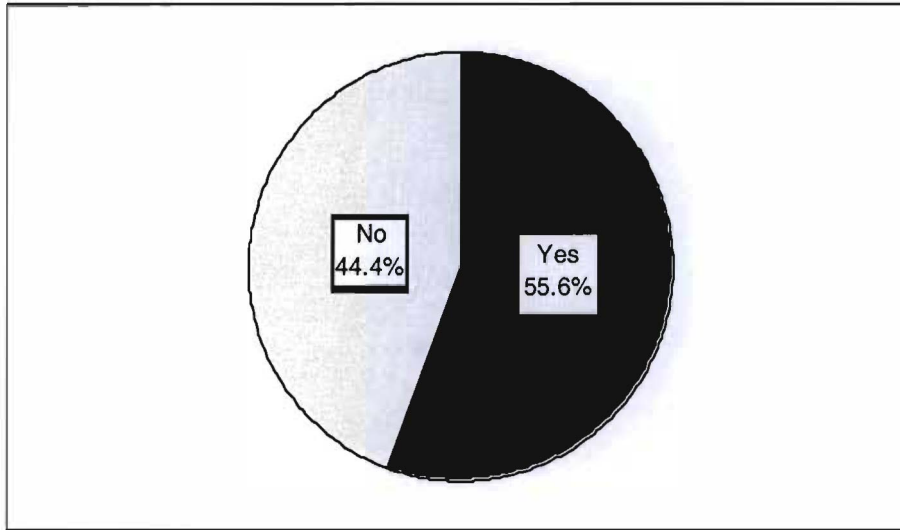
**Table 28: Policies for records management**

<b>POLICIES FOR RECORDS MANAGEMENT</b>	<b>TOTAL</b>	<b>PERCENT OF CASES</b>
Does not have records management policy	4	44.4
Policy provides statements of company records management objectives	5	55.6
Policy defines responsibilities for the corporate records management	2	22.2
Policy provides a company records management plan	2	22.2
Policy provides guidelines for archival records	1	11.1
Policy provides guidelines for managing electronic records	2	22.2
Policy provides guidelines for appraisal, schedules and disposition of records	1	11.1

Table 28 indicates that more than half, five (55.6%), of the respondents showed that there was a records management policy and that the policy provided statements of company records management objectives. Two (22.2%) respondents revealed that their policy defined responsibilities for corporate records management, provided a company records management plan and also provided guidelines for managing electronic records. One (11.1%) response indicated that the policy provided the guidelines for archival records and it also provided guidelines for appraisal, schedules and disposition of records. On the other hand, four (44.4%) revealed that their companies did not have a records management policy.

To explore management's resource commitment to records management systems, question 6.6 asked for an indication of the inclusion of a records management item in the income and expenditure of the company. Figure 26 shows the results.

**Figure 26: The availability of records management items in companies' income and expenditure statement**



From figure 26 it is obvious that more than half, 55.6%, of the companies had a records management item in the income and expenditure of the company, while (44.4%), did not have a records management item for records management in the companies.

To check the reliability of the answer to Question 6.6, Question 6.7 asked if there was a specific company budget allocation for records management. Figure 27 shows the results.



**Figure 27: The availability of a budget allocation specifically for records management**

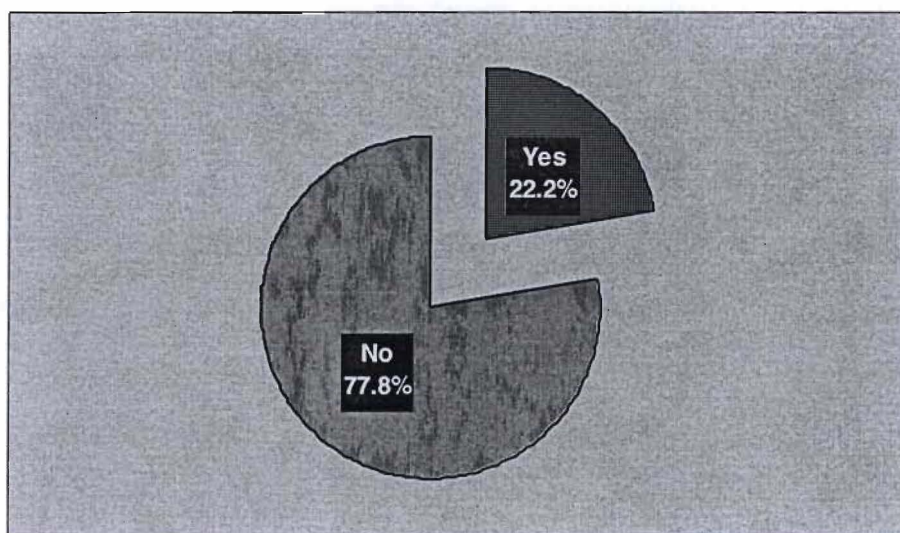


Figure 27 indicates that most, 77.8%, of the companies did not have a specific budget for records management system in the companies, while 22.2%, companies had a specific budget for records management systems.

To cross-check the answer to question 6.7, the following question asked for comparisons between previous year's budget and current year budget. Table 29 summarizes the findings.

**Table 29: The status of corporate records management budget in comparison to previous year's budget**

BUDGET TREND	RESPONSE	PERCENTAGE
Increased	4	44.4
Decreased	-	-
Stayed the same	-	-
No records budget	5	55.6
<b>TOTAL</b>	<b>9</b>	<b>100</b>



Table 29 above indicates that five (55.6%) of the companies maintained that they did not have a budget specifically for records management, while four (44.4%) showed that they had a budget which had increased in comparison to previous year's budget.

Question 6.8 intended to reveal future priorities of management in relation to records management systems. Respondents were allowed to choose more than one option. Table 30 summarizes the findings.

**Table 30: Management's future priorities in relation to corporate records management systems**

FUTURE PRIORITIES FOR RECORDS MANAGEMENT	TOTAL	PERCENT OF CASES
Establishing records committees	4	44.4
Addressing problems posed by computer generated records	5	55.6
Obtaining adequate training for records staff in the company	5	55.6
Intervening in problems posed by active records and files	1	11.1
Managing electronic records	7	77.8
Managing inactive records	-	-
Conducting a records inventory	6	66.7
Creating records retention schedule	4	44.4
File management	6	66.7
Needs assessment	3	33.3
Managing archival records	3	33.3

From Table 30 it is clear that the future priority of corporate records management was on managing electronic records. Table 28 also shows that six (66.7%) respondents placed future priority on conducting a records inventory and on file management. The priority of five (55.6%) companies was addressing computer generated records and training records staff in the companies. The priority of four (44.4%) companies was establishing a records committee and creating records retention schedules. Three (33.3%) prioritised needs assessment and managing archival records. Only one (11.1%) company prioritized the intervention in problems posed by active records and files.

It was important to ascertain if the top management of these companies was supportive of the corporate records management systems. Therefore Question 6.9 in the interview protocol

asked the respondents to show their level of agreement in relation to top management support. The findings show that two thirds (66.7%) strongly agreed that the top management of their companies was very supportive of records management improvements. One third (33.3%) indicated that they just agreed that the top management supported records systems improvement.

In the same Question 6.9, respondents were asked to comment on top management's support of corporate records management systems. Three comments were received.

One comment noted the outstanding job one company was doing on purchasing cabinets, computers and updating all the facilities related to records management. The second comment involved wanting the top management of the company to update the records management system to cater for technological changes. The last comment requested that top management introduce a records management system.

### **5.11 Summary**

The purpose of this study was to develop a model for a corporate records management system with special reference to sustainability reporting in the Iringa region of Tanzania. In order to build the empirical base for the model, this chapter presented the empirical findings of the study. The study presented results from interviews and supplemented some of the interview results with observation results. In the incidences where the interview results contradicted observation results, observation results were considered as being conclusive.

- i. The majority of the companies used administrative officers to head their records management system processes. The findings also revealed that most of these administrators had higher education qualifications. However, most of them used bookkeeping knowledge and some in-house training to handle records management matters.
- ii. In general all the companies kept sustainability related records series. It was found that the majority kept environmental related records, as well as economic related and social related records. However, the findings reveal that the majority of the companies did not publish their sustainability reports.

- iii. The results revealed that all companies in the study population used computers in their various activities. The results also revealed that the major uses of the computer were e-mail, word processing, spreadsheet and Internet. However, the majority of the companies did not own websites.
- iv. The findings demonstrated that most of the companies had standardized forms for creating records and they also used templates to create electronic records. The findings also showed that companies registered newly received or created records.
- v. To capture e-mail in the records management system, the majority printed the e-mails ~~in the paper form.~~ The findings revealed that the majority of the companies did not add metadata when creating and receiving electronic records.
- vi. Generally the findings were that most of the companies' records were created by authorized persons.
- vii. The combination of a centralized and decentralized system was the most favored records control system by the companies under study. The findings also revealed that most of the companies used movement books, personal secretaries and naming and number allocation to track the movements of records.
- viii. In general, the findings revealed that the majority of the companies used floppy diskettes, CDs, wooden cabinets and steel cabinets to store their records.
- ix. The findings also revealed that most of the companies experienced loss of their records, and the major reason identified was computer crashes.
- x. In the transferring of records, the majority of the companies revealed that the records were transferred in boxes that were accompanied by a document listing the box's holding. However, only one company had a proper programme for semi-current records.
- xi. The findings show that the greater number of companies kept duplicate copies in a separate, secure place. The findings also show that the companies did not have fire extinguishers in the records sites and the majority did not keep emergency phone numbers. The findings also revealed that companies did not have vital records programmes or disaster management plans.
- xii. While the majority of the companies felt that their filing systems supported their users effectively, in most of the companies the most dominant filing systems were functional and subject based filing systems. However, it was also revealed that companies used different filing systems in different departments and only one company had a visible finding aid.

- xiii. The majority of the companies showed that they retrieved information in the corporate records system within six to ten minutes.
- xiv. It was also revealed by the findings that the majority closed their records regularly. However, the findings indicated that only one company had an organized onsite treatment of semi-active and inactive records. The findings also revealed that inactive records were treated very unprofessionally.
- xv. The results revealed that most of the companies did not inventory their records. However, the few with inventories used them to improve the management of files.
- xvi. The majority of the companies did not appraise their records and did not have appraisal guidelines, disposal schedules or retention schedules. Few companies with retention schedules indicated that these schedules were up to date and detailed.
- xvii. Nevertheless, most of the companies indicated the availability of an e-mail policy, a specific policy for storage, access and use of electronic records, a policy to protect records from manipulation and alteration and a policy to guide the transfer of electronic records from old software to new software. However, the majority did not have written procedures for the records migration process from old to new software.
- xviii. Most of the companies did not have a records committee. In the few companies with a records committee, the committee was involved in developing and supporting the implementation of corporate record management policies.
- xix. The majority of companies indicated that they were committed to investing financial resources to records management. However, the findings indicated that there were no specific budgets for the records management systems in the companies. The findings also showed an increased trend in the spending of money on records related expenditures.
- xx. The findings indicated that the future priority of the companies' corporate records management was the managing of electronic records. The top management of the companies was also found to be very supportive of the records management improvements in the companies.
- xxi. The findings demonstrated that only two companies were aware of ISO 9000 and ISO 14001 standards which cater for both records management and sustainability.

## CHAPTER SIX

# Interpretation of findings

### 6.0 Introduction

Chapter Five presented the findings of the study based on an analysis of the empirical data collected for the study. However, empirical results without interpretation lack contextual meaning to support the conclusions of the study. The exploration of the inherent meaning of the empirical findings provides appropriate meaning and solution of the research problem (Leedy 1989). In the context of this study, the interpretation addresses the question of what the results mean, how they relate to the literature reviewed and how they relate to the objectives of the study. The purpose of the study was to develop a model for a corporate records management system focusing on sustainability reporting generated records in the Iringa region. The specific objectives and research questions are restated in the section 5.0.

The discussion on empirical results in this chapter follows on from the specific objectives and corresponding research questions. However, the discussion starts with the background information of respondents which was not part of specific objective but relevant for keeping flow of argument in the thesis. The discussion will be referring to the findings summarized in section 5.11 and other empirical data illustrations provided in the Chapter Five.

### 6.1 Background information on heads of corporate records management

With regard to the title, highest education level and records management training of the person heading corporate records management sections the findings of the study are provided in section 5.11 (i). The following subsections discuss the findings and the implication of the findings for this study.

#### 6.1.1 Title of heads of corporate records management sections

On the question of job titles, seven companies used administrative officers to head their records management section. One company used “information manager” and another used

“corporate information manager”. Since “records manager” was also a category, but not one selected by any respondent, the results imply that probably either the term “records manager” is not familiar to the companies or that companies perceive records management functions as functions that do not require a dedicated person with the title of records manager. Langemo (2003) pointed out that in many places records management is not a priority. Therefore, it could also be argued that perhaps records management is not a sufficiently high priority of the companies in this study to deserve a dedicated person with the title of records manager. The results, therefore, suggest by implication that some corporate records management functions were ignored because companies did not have a dedicated records manager to perform records management functions. This problem is enlarged on in the next paragraph.

The results showed that two companies used “information manager” and “corporate information manager” as title for the persons responsible with records management (See Table 6). The use of these different titles suggests that perhaps the title of “records manager” is not common in the private companies’ environment. Yusof and Chell’s (1999) findings also showed that only two companies out of ninety companies used the term “records manager” to refer to people in charge of business records management. In the study by Yusof and Chell (1999) the majority, fifty two companies, used “Keeper of Documents” as the title for the person in charge of the records management sections. The Keeper of Documents as implied in the study by Yusof and Chell (1999) is probably not well prepared to carry out the functions of corporate records management. To use Yusof and Chell’s (1999: 230) words “Keepers of documents may be less obviously equipped for the [records management] job...” The same could apply to administrative officers in this study due to the fact that administrative officers’ core activities in the companies are not records management activities. Therefore, it appears that a corporate records manager needs to be more than a records manager and probably the most effective means of incorporating records management in the model is to embed all the records management functions in the role of administrative officers or document managers or IT managers or information systems managers in private companies in the Iringa region. The titles given to people performing records management functions and their implications for records management systems performance in private companies require further research.

### **6.1.2 Highest education level of heads of corporate records management sections**

After assessing the title of the heads of corporate records management it was important to ascertain the highest education level reached by the respondents. It was assumed in this study that the education level attained by the heads of records management sections could partly help to explain the running of a corporate records management system in the companies under study. The findings (Table 7) indicated that companies used highly educated people to head their corporate records management sections. Regardless of the higher education level attained by the heads of records management sections in the companies in this study, records management functions were not handled professionally as will be demonstrated later in this chapter.

Since most of the corporate records management, discussed in this study, was handled by an administrative officer, by implication it could be argued that the employment of highly educated personnel was not motivated by the management of records but rather by other operations undertaken by those administrative officers. It appears that it is common in Tanzania for organizations to use degree holders to head records management functions. For instance, Ndibalema's (2001) study, also revealed that the head of records management sections in the NSSF in Tanzania was a degree holder who acquired records management skills through short courses on records management provided by the Eastern and Southern Africa Management Institute (ESAMI) and the School of Library Archives, Documentation Studies (SLADS).

### **6.1.3 Records management related training**

According to Mnjama (1996a: 34) "Ideally the records manager must be professionally trained and experienced in establishing and instituting a records management programme". Based on Mnjama's (1996a) claim and the fact that most of the heads of corporate records management functions had higher education it was pertinent to determine their level of records management training attained. The findings in the Figure 4 showed that the majority, five companies, had people who were trained in records management related courses.

The implication of the results is that since the records management section is headed by highly educated people with some basic records management training, records management

could be assumed to be managed professionally and smoothly in the companies surveyed. The model developed in this study considered in-house, paraprofessional or outside training as appropriate for corporate records management, in light of the fact that this training is for educated people who are heading records management sections in the companies in this study. The results also suggest a need for a dedicated study on the appropriate training methods for private companies' records management personnel.

Contrary to Ndibalema's (2001) and Yusof and Chell's (1999) findings which revealed a lack of records management training in records management personnel, the current study found that in aggregate, the majority of the companies trained their heads of records management section. Specifically, Ndibalema (2001) revealed the lack of records management training in the NSSF was due to financial resources and work load. Yusof and Chell's (1999) study reported that fifty percent of the companies in their study used untrained staff who used their prior experience alone to manage records. In another earlier study Yusof and Chell (1998) acknowledged the importance of training in the field of records management and recommended that the universities provide training for records management professionals. Therefore, the appropriateness of records management training provided by universities as opposed to that provided by other institutions such as the ESAMI and the SLADS in Tanzania should be evaluated.

## **6.2 Sustainability related records and reporting**

Sustainability reporting adds value to the companies' products and services and stimulates stakeholders' participation for the long-term survival of the companies (GRI 2002). The focus of the model developed in this study was on the management of corporate sustainability related records for sustainability reporting. Therefore, it was important to identify records series in the sustainability reporting systems to address specific objective number two of this study which was to identify the records series of sustainability reporting systems. To reveal the motivation or demotivation for keeping sustainability related records it was also important to determine if companies reported their sustainability status. The results are summarized in section 5.11(ii).



The following two subsections provide the discussion and implications of the findings on sustainability related records series.

### **6.2.1 Sustainability related records series**

The findings (Tables 8, 9, 10 and 11) indicate that most exporting companies in the Iringa region kept and maintained sustainability related records series. The results showed that the majority, that is above fifty percent, of the companies kept environmental related records. Almost a hundred percent of the companies maintained economic related records and social contribution records.

The pertinent observation in these findings was the fact that the low-ranked aspects in the environmental related records series (Table 8) such as emission quantification records, emission composition records, end of life reuse of materials records, biodiversity records, waste water composition records, environmental guidelines records and human rights contribution records are very important from an environmental sustainability perspective. Only two companies kept these records. These neglected environmental related records have global impacts.

On the other hand, the highly scored records were business related records. These records were energy bills records, energy expenditure records, fuel records, transport costs records, material balance records, financial accounting records, tax records, employer appraisal records, human resources records and staff development records. All these business related records series were kept by all the companies. The results in this study are contrary to the findings of Lober *et al.* (1997: 63) which revealed 93% of the sustainability report composition dealt substantially with environmental issues.

The implication of this discussion is that companies valued highly the records series which contributed directly to their profit and they left out some other categories of sustainability related records series. Environmental and health, climate change and biodiversity are among environmental related issues with global impacts (Boyle 2004). Since most of the lower ranking records series were environmental records that had global (rather than local) impacts, the researcher's view is that companies in this study need to establish a system to capture all

environmental related records to contribute positively to the worldwide sustainable development.

### **6.2.2 Sustainability reporting and forms of reports**

Market incentives, social incentives, political incentives and accountability incentives are among the major driving forces for sustainability reporting (Solomon and Lewis 2002). Other scholars argue that visibility and credibility are the major driving forces for sustainability reporting (Bamberger and Share 1999; Bowen 2000). Due to these driving forces for sustainability reporting, companies published hard copies or web based sustainability reports (Scott and Jackson 2002). Therefore it was important in this study to determine the kind of media used for sustainability reporting. The importance of revealing the media for sustainability reports was to support the model developed to cater for all types of records generated from both types of sustainability reporting. The question on sustainability reporting also helped to reveal the link between records series kept and sustainability reporting processes.

The findings were presented in Figure 5 for sustainability reporting and Figure 6 for forms of sustainability reports. With regard to publishing sustainability reports, the findings showed that only three out of nine companies published their sustainability reports. The findings regarding sustainability reporting imply that the major reasons for keeping sustainability related records were not for sustainability reporting purposes. This reason was also implied in not keeping environmental related records with global impacts. Probably the engagement of the companies in publishing sustainability reports would motivate the capture of all types of records including environmental related records with global impacts. In addition, based on the driving forces for sustainability reporting which give companies publicity and build reputation, it is important for these companies to consider improving the capture of environmental related records with global impacts and publishing their sustainability reports.

With regard to the forms of sustainability reports for companies, the results are presented in Figure 6. It was found that five respondents published their sustainability reports in printouts, two respondents published on the Internet and five did not publish them. The observation revealed that only three companies published their sustainability reports. Two companies

published concurrently by means of the Internet and printouts, while one company published only on the Internet. In order to cross-examine the survey results on the question of the publishing of sustainability reports and the forms of sustainability reporting, confusion occurred which is discussed below. However, observation results concur with sustainability reporting above whereby three companies were found to publish their sustainability reports while the remaining six did not publish their sustainability reports. The study therefore, as presented in Chapter Five, considered the observation results as being the study conclusions. The results in this study are contrary to the Scott and Jackson (2002) study which found that companies are increasingly issuing sustainability reports particularly in the form of websites.

The study revealed conflicting results between publishing sustainability reports (Figure 5) and the forms of sustainability reports published (Figure 6), whereby five responses in the interview (Figure 6) showed that companies published sustainability reports in paper form and two on the Internet while only three companies (Figure 5) indicated that they were publishing sustainability reports. The observation results revealed that only three companies published their sustainability reports. Therefore logically in the interview results three responses: two that publish on the Internet and paper format and one publishing only on a printout format were supposed to indicate publishing on paper format. Therefore, the two responses in the survey indicated that they were publishing sustainability reports, but they were not. Perhaps the reason for the confusion was vagueness of the meaning of sustainability or the question on the interview protocol was confusing. Based on the fact that almost all companies kept economic and business related records and the fact that usually accounting related records were audited, perhaps some of the respondents thought the economic records were sustainability reports. The other probable reason could be that respondents did not understand what was supposed to be included in the sustainability reports. Therefore, it could be argued that in spite of the care taken to pre-test the instruments the two questions were probably confusing to respondents. However, as noted above, the observation results were considered to be relatively reliable in arriving at the conclusions of this study where there was conflict in the results.

To conclude the discussion on sustainability reporting and the forms of sustainability reports, it was important to find out whether companies had websites. According to Shepherd, Abkowitz and Cohen (2001), online sustainability reporting adds value to stakeholders as it reaches a wider audience. The findings presented in Figure 8 indicated that three companies

had a website and six did not. The empirical findings suggested that owning a website was one thing and publishing an online sustainability report was another. In this case therefore one company had a website and did not use the website for publishing a sustainability report since only two companies were observed to have online sustainability reports. On the other hand, scholars like Phillips (2003: 48) and Bilotto and Guercio (2003: 136) underscored the urgency and challenges of managing websites records. Therefore, in the context of the current study it was important to include the website information in the model developed as part of the electronic records systems.

### **6.3 Records creation and capture**

It is important for an organization to create records in a systematic way while controlling the size and volume of the records (Kennedy and Schauder 1998). In order to address objective number four of examining the process of records creation in the sustainability reporting system the research findings are summarized in the section 5.11(iv). Figures 7 and 9 also provide illustrations of the findings regarding standardized forms and templates objective. Leyzorek (1991), Penn *et al*, (1989) and Kennedy and Schauder (1999) recommended that organizations should design standardized forms and templates for records creation in order to control quality of records input in record keeping systems. The findings indicated that five companies had standardized forms and templates to create records.

Having forms and templates in the companies in the Iringa region implied that companies in this study were capturing only necessary records for sustainability reporting and saved time by avoiding repetitive work and redundancy. This was also reflected in the sustainability related records series identified in these companies, whereby it was established that the majority of the companies kept sustainability related records. It could be concluded that exporting companies in the Iringa region performed well in capturing records using forms and templates. However, it is important for the four companies found not using forms and templates to establish a system for using these tools in order to control the records input in their record keeping systems.

## **6.4 Information technology uses in records management**

To address specific objective number five, that is of exploring challenges posed by IT in the records management systems, the established findings are summarized in section 5.11(iii, v & vi). The following sections present the analysis of the findings in terms of computer use, email capture and metadata issues.

### **6.4.1 The use of computers**

Organizations are increasingly using information technologies in their daily activities (Chachage 2001a; Roper 1993). Additionally Wato (2002) claimed that IT brings new challenges to the information management profession daily. The argument made by Chachage (2001a) and Roper (1993) above was also supported by the empirical findings of this study when it was found that all companies under study used computers in their various activities. The use of computers in the companies in this study could be attributed to the international environment in which these companies operated. Other international companies using those technologies could also motivate the companies under study to adopt new technologies. Another reason could be the anticipation that the use of computers and information technologies would generate competitive advantage in the companies. Additionally, the use of computers in the companies in this study could also be motivated by an increased need for fast and accurate business communication.

In order to test the reliability of the responses to questions concerning the use of computers, it was pertinent to identify various specific uses of computers in the companies. The results which are presented in Table 12 confirmed that, as started above, all companies used computers and the results also indicated that all companies used e-mail, word processors, spreadsheets and the Internet. Surprisingly, the least used programmes were computer aided dispatch, open archival information systems, electronic document imaging, document management software, geographical information systems and intranet which were mostly related to electronic records management systems. The low use of electronic related application software suggests that electronic records were not properly managed in the companies in this study. The findings of this study seem to support Katundu's (2001)

observation that African organizations adopted a “wait and see” attitude in managing electronic records. Abbott (2001) also had similar views when he claimed that almost nothing is done by the private sector in managing electronic records in Africa.

Therefore the high use of word processing, spreadsheets, e-mail communication and the Internet, which are not electronic records management related software, could be attributed to the market availability of these information communication technologies (ICTs). The availability and proximity of computer training facilities could also be a factor motivating the use of ICT facilities. It could also be argued that for today’s business environment the use of word processor and spreadsheet packages for word processing, accounting and statistical operations is of paramount importance. For the international business environment, communication using e-mail and Internet based communication is also vital for minimizing the costs of international communication.

The low use of records management related software and technologies could be attributed to lower levels of awareness of these facilities and also to the attitude toward records management functions of these companies. For instance Ndibalema (2001) found that at the NSSF in Tanzania, the top management of the organization had a very negative attitude towards records management activities. Ndibalema’s (2001) study also revealed that the negative attitude of the top management at the NSSF resulted in poor training and poor staff morale in the records management departments. Additionally one could also argue that perhaps the costs of the records management related software and hardware hinders the use of records related technologies.

The implications of the findings are that a lot of electronic records are being created in these companies without these records being managed with records related technologies. It could be concluded that there is a need to emphasize the use of records related software and technologies in these companies. The cost factor could be addressed by innovating alternatives to the related software for records management. Alternative technologies could be developed using archival and records management principles and theories.

#### **6.4.2 E-mail capture in records keeping systems**

The findings showed that all companies in this study used e-mail communication. Since e-mail software and other electronic records making systems such as websites are not record keeping applications (Barry 2004), it was important to ascertain how e-mails were captured in the records keeping system. Contrary to the earlier advice of Roper (1993) that printing electronic records is not a long-term solution, the findings in this study showed that the majority of the companies printed their e-mails (See Table 14). However, not all e-mails are records (Parker 1999). When e-mail messages are classified as records, one of the ways to capture them in the records keeping system is to take them out of the e-mail application by printing and filing them manually or is to use an electronic records management application to manage them (Parker 1999; Sejane 2004). It is also important to classify and add metadata in order to provide easy accessibility and maintain the evidential value of e-mail records. The main reason for adding metadata is to maintain the recordness of e-mail records and other electronic records (Sejane 2004). The metadata question is addressed in the following section 6.4.3.

The findings suggest that e-mail records were adding more paper based records to records systems of the companies in this study. It implied that in the near future companies could lack space for keeping their paper records due to the volume of e-mail being converted to paper format. For that reason it is important for companies to find a solution for managing paper based records. The model developed in this study used a hybridization technique to address the issue of reducing the volume and size of paper based records from e-mail records and other electronic records.

Additionally, since all companies used e-mail, the use of electronic communication needs to be monitored and managed. Monitoring and managing the use of e-mails is necessary because e-mail could be personal or corporate (Sejane 2004). In order to separate the individual from the corporate use of companies' applications there was a need for a specific policy to guide the application of companies' e-mail. The results in Figure 10 indicated that five companies had a policy to guide the capture and management of e-mail while four did not.

The availability of a policy to guide the use of e-mail could be attributed to the companies' strictness in using their assets and to the wise use of the companies' time. Another reason could be an understanding of the importance of specific policy to manage e-mail in the private sector. The results on the issue of specific policy to guide e-mail use imply that in several companies, electronic communication systems are not used for personal e-mail and other personal communication. However, the four companies operating without a specific policy for the use of e-mails need to establish the policy.

#### **6.4.3 Metadata in electronic records**

Record contents and metadata need to be captured and made available through a central server, workstation (Public Record Office 1999), or printed and made available on the shelves or cabinets for use. The importance of metadata for preserving recordness of electronic records was covered extensively by Erlandsson (1996). Other authors such as Abbott (1999) and Sejane (2004) also argued for the use of metadata to preserve the evidential value of electronic records. Therefore it was important to determine the application of metadata by the companies in this study.

The survey results for adding metadata are illustrated in Figure 11. The results showed that six companies did not add any metadata in creating or receiving electronic records, while three did. However, the observation results revealed that only two companies added metadata to their electronic records. The contradiction in these results could be ascribed to a misunderstanding of the word "metadata". Doubtless, records without context and structure lose evidential value. A records management system needs to add metadata to preserve the recordness of electronic records.

The lack of metadata use in the companies in this study could be attributed to a lack of awareness of metadata and a neglect of records management as an important activity in the companies. Though the researcher observed two companies with metadata in their electronic records, when asked what kind of metadata were used, eight respondents indicated that they were not using any metadata while one showed the template which required metadata to be added. This contradiction implies that only one company knew the exact meaning of the term "metadata" and the use of metadata. However, the most important factor was not the



contradiction in answering the question but rather the non-use of metadata. Therefore from the above discussion it can be concluded that the majority of the companies did not add metadata when creating or receiving electronic records.

With the assumption that some companies would be adding metadata it was important to ascertain how metadata were added in electronic records. The observation results revealed that only two companies added metadata to their electronic records. It was found that one company incorporated metadata in the records and the second company attached a separate sheet with metadata in the electronic records printouts. Table 15 in Chapter Five summarizes the findings. These findings confirmed observation results that only two companies added metadata and seven companies did not add metadata. In summary, electronic records created or received by the companies in this study are vulnerable, their evidential value may be reduced or lost due to the lack of the use of metadata.

Six companies indicated that they used a LAN and all companies were using Internet and e-mail (Table 12). In a network environment some records could be created by unauthorized persons. However, the findings in this study indicated that eight companies' records were created by authorized persons and only one company indicated having records created by unauthorized persons (Figure 12). The results imply that even though the majority did not have a problem with the authority or people creating records there is a need for companies to put in place a security system in their computer environments. The presence of a company with unauthorized persons creating records justifies the need for security systems in a computer environment.

## **6.5 Records control procedures and storage facilities**

Records could be controlled and maintained in three main ways: centralized, decentralized and a combination of the two (Ellis and Mauldin 2003; Shepherd and Yeo 2003:173). In order to simplify the handling of records, and to reduce infrastructure requirements and cost, companies could favour a centralized system. However, a decentralized system offers increased control at the local level and ease in meeting departmental specific requirements (Ellis and Mauldin 2003). Additionally Parker (1999: 79) also supported decentralized systems when recommending the use of the "arm's length..." records management

philosophy in designing any records management system. The “arm’s length” metaphor suggests that records should be kept as close as the reach of the users’ arms.

Storage facilities for records are important for various reasons. Among the reasons are protecting records from any risk of physical damage, making space for records and users, ensuring security of records from unauthorized access of records and affording easy access and retrieval of records in the system (Parker 1999). One could argue that the level of security, access, protection and the type of records could determine the storage equipment to be used for a records management system.

In addressing objective number six of the study, which is to assess the facilities and procedures available and used for the storage and control of records the established findings are summarized in the sections 5.11(vii, viii, ix & xi). The following discussion is organized based control procedures, storage facilities, loss of records and vita records.

#### **6.5.1 Records control procedures**

The findings of the study are summarized in Table 17. The results indicated that four out of nine companies favoured the combination of centralized and decentralized techniques. It could be concluded that more exporting companies in the Iringa region favoured a combination of strategies in controlling and maintaining their records than the use of a single strategy to control their records. The results of this study are in line with the observation of Roper and Millar (1999) who stated that in any organization, especially large organizations, there must be some degree of decentralization. The results, therefore, imply that exporting companies in the Iringa region benefited from the advantages of both centralized and decentralized systems. The results also imply that the companies in this study incurred more expenses running the two systems than if they would have done if they had run one centralised system.

File tracking is one of the common activities in a records management system. Tracking could be action tracking or location tracking. Companies could use manual systems of cards, books and forms or automated tracking processes (Connelly 2001). The results in Table 18 showed that a majority used movement books, movement cards and electronic tracking to track records use in the companies. The four responses which were indicated in the other category in Table 18 listed situational method, naming, and secretaries on following up file

movements. The results imply that the majority, six responses, used formal records management procedures to track movements of the files. The results also suggest that probably the four responses which selected the other category did not use formal records management tracking mechanisms such as movement books, movement cards and electronic file tracking. The results in this study are contrary to Mnjama's (2000) action report, which prior to establishing file movement control system, identified a lack of system for controlling file movements at the Botswana Meat Commission (BMC), and An and Fiao (2004: 37) who reported that "...tracking is not common in Chinese records management practice." Therefore it is important for the companies not using formal file tracking mechanism in this study to introduce a file tracking system in their corporate records management system.

### **6.5.2 Records storage facilities**

The findings showed that most of the companies stored records in wooden cabinets, steel cabinets and shelves. Some companies combined wooden and steel cabinets for paper based records. Companies also used compact discs, floppy diskettes, individual workstations and folders as storage facilities for electronic records.

The combination of steel cabinets and wooden cabinets suggests the availability of a secure storage system and accessibility for the paper based records. The intensive use of diskettes and folders in the computer workstations implies that electronic records were exposed to the risk of technological obsolescence and were probably lost due to the delicacy of diskettes. The low use of CD (CD-R) and DVD was probably due to lack of awareness of the short-term advantages of these storage facilities. However, the use of CDs implies that companies were concerned with the long-term preservation of electronic records. The life span of these storage facilities is still uncertain. The model developed in this study suggests an immediate solution for overcoming the unknown life span of electronic records storage facilities.

### **6.5.2.1 Loss of electronic and paper records**

In the case of electronic record loss, the study found that five companies had already experienced losses of electronic records (Figure 13). The study results also revealed that the cause was computer failure. In the Tanzanian environment, computer failure could be attributed to electricity fluctuations and rationing which is prevalent in most regions in the country. The results suggested that companies lost a lot of their electronic records. Therefore it is suggested in this study that a professional records management system be established in these companies with security measures to protect records from getting lost due to electricity problems. The security measures could include standby generators, uninterruptible power supply (UPS) and concurrent backing up of the system remotely. On the other hand, results indicated that paper based records were not lost, which implies that the storage system for paper based records maintained the integrity of the records and was secure enough to protect records from getting lost.

### **6.5.2.2 Vital records programmes**

Vital records comprise 5% of all the records in any organization (Parker 1999: 67). Vital records are thus named because they play a vital role in resuming business after a disaster. In other words companies can operate due to the presence of companies' vital records. These records provide legal status of the companies and could maintain stakeholders' rights in the companies (Jaderstrom, Kruk and Miller 2002: 265). Vital records could be all the records containing information about those with rights and having special interest in the organizations. Together with policies and procedures to guide the management of all records, companies need to have a special programme for vital records management. The programme is imperative due to the importance of vital records in the legal operations of the companies. In fact the International Records Management Trust training manual edited by Roper and Millar (1999: 40) addressed the importance of having enough fire extinguishers and an emergency plan that is simulated repeatedly. Arguing along the same lines Ngulube (2005) stressed the importance of disaster plans in an information environment while citing some typical examples of the consequences of the absence of a disaster management plan. For instance Schlicke (1998) cited in Ngulube (2005) pointed out that the aftermath of a disaster affecting information and technology systems in the companies leaves 40% of them closed. Therefore, it was pertinent to assess the companies' vital records programme. Table 19

presented the survey results, which claimed that eight companies kept duplicate copies, eight installed extinguishers and sprinklers and six had personnel responsible for company records security. One company indicated the availability of a vital records programme.

The observational results showed that four companies had duplicated and separately kept vital records, while four other companies which also indicated duplication of their vital records explained that they kept duplicates in their head offices in other cities or countries. The duplicates of vital records kept in the companies and shown to the researcher were mostly kept on site. The implication is that if a fatal disaster occurred which affected the whole company, both the vital records in duplicate and the originals are likely to be harmed. Therefore, companies which kept their records remotely in their head offices in other cities or countries kept their vital records more safely than the companies that kept them on site.

The implications for differences in observational results and interview results in the case of availability of extinguisher and sprinkler systems is probably due to the fact that respondents included equipment which were in other parts of the company building and the observation considered only the records management storage areas. Therefore it appears that preservation of records in case of fire was not a priority for those companies, as they put their sprinklers and extinguishers in other parts of the building, but not in the record storage areas. The presence or lack of emergency telephone numbers in case of any disaster implies that some companies had informal ways of operating while others operated openly and professionally, particularly the company that displayed the emergency police and internal fire section telephone numbers on the companies' notice boards.

It could be concluded that a greater proportion of the companies were aware of the importance of duplicating their vital records, because most of them kept duplicates separate from the original vital records. However, for the four companies that kept vital records separate on site, it would have been safer to keep them in remote storage. It could also be concluded that companies did not have vital records programmes or disaster management plans because of the lack of emergency phone numbers, fire extinguishers and sprinkler systems in the records storage areas. The IRMT (2003) in Mnjama (2004: 37) also reported the absence of disaster preparedness and recovery plans in the non-governmental charitable organization in the UK.

## **6.6 Records retrieval tools and distribution methods**

According to Parker (1999: 105) “there is no point in keeping records unless they can be retrieved”. Therefore it was important to assess the records management filing systems for exporting companies in the Iringa region. In addressing specific objective number five of this study: “To determine the retrieval tools and distribution methods of corporate records management systems” the findings are summarized in sections 5.11(xii & xiii). The following discussion starts with filing systems and findings aids and finishes with retrieval time.

### **6.6.1 Filing systems and finding aids**

Contrary to Ndibalema’s (2001) study which reported that at the NSSF 50% of its branches used a numeric filing system, the empirical results of this study showed that many, (four responses for subject based and functional based filing system), of the companies used functional and subject filing systems (See Table 20). The least used filing systems were numerical and alphabetical filing systems. Although the observational results indicated that the filing system varied from one department to another, it was clear that functional and subject based filing systems dominated in all companies in this study. On the other hand Roper (1993: 35) supported the variation of filing system in different departments by arguing that “...within business community...each person set up his or her own independent series of files using whatever [filing] system comes to hand”.

The use of subject and functional filing systems implies that these systems were user friendly and could be adopted easily by all exporting companies. However, it could also be concluded that it is important for companies to be systematic and use one filing system throughout the entire company. The benefit would be to simplify resource sharing and minimise the cost of running different systems within one company.

The assessment of the filing system was followed by the determination of the effectiveness of the system in supporting users. The results in Figure 17 show that eight companies agreed that the filing system effectively supported its users, while one company indicated that the filing system did not effectively do so. Thus, the information stored in the corporate records

management system in the companies in this study can generally be seen to have been accessed efficiently due to the functioning of the systems.

A records management system needs to be supported by finding aids which are easily accessible and available in more than one place (Nyirenda 1993). One could argue that the availability of record-finding aids in more than one place depends on the size of the office, the size of the records inventory and the number of users of the records. The results on finding aids were presented in Figure 18. It was found that two thirds of the companies had finding aids while one third did not.

The results imply that companies had functioning record retrieval systems. However, as indicated by Nyirenda (1993) the finding aids need to be accessible to users. The results concerning accessibility of findings aids obtained through observation showed that only one company had visible finding aids. The conflict between observational results and the interview results shown in Figure 19 was probably due to the fact that the question on finding aids was followed by the question on the accessibility of finding aids. Therefore respondents matched the availability and accessibility of finding aids for consistency, not revealing the true picture of the situation in practice.

Normally, inside users of the system know the system better than outside users of the system. Therefore, besides the availability of finding aids and their accessibility, it was important to provide other forms of assistance to users and external users in particular to simplify the location of records. Figure 20 showed that five companies provided other assistance for users. In particular, companies used secretaries to support users to locate records. Therefore the results regarding finding aids imply that companies did not use professional finding aids. The results suggest that there is a need for establishing accessible finding aids.

#### **6.6.2 Retrieval time of recorded information**

According to Ndibalema (2001) in proper records management systems, the retrieval time of recorded information from the system is normally less than five minutes. The time taken to retrieve information in paper based records in this study was summarised in Table 21. The findings indicated that two thirds of the companies retrieved information within 6 to 10 minutes and one third of the companies indicated they retrieved information in less than 5

minutes. The results therefore, imply that records retrieval systems in the companies were not efficient.

## **6.7 Transfer and disposal of corporate records**

In order to fulfil specific objective number eight of the study, that is, determining the transfer and disposal of inactive records, it was important to first assess if files were regularly closed, then to determine the transfer procedure of records to the records centre and determine the programme for inactive records. The established findings are summarized in sections 5.11(x & xiv). The sections of the following discussion are organized in terms of transfer of records and programmes for semi-current records and approaches to inactive records.

### **6.7.1 Records transfer and semi-current records programmes**

Figure 21 provided answers for whether files were closed regularly. The results showed that seven companies closed their files regularly and two did not. The implication of this result is that since files were closed regularly there was a programme for semi-active and inactive records in the companies to deal with these closed files.

In the assessment of records transfer it was assumed that all the records with less administrative value or closed files needed to be transferred to the records centres or an archive. Parker (1999) recommended that the transfer of records to a records centre or to an archive should be accompanied by a records transfer list (RTL). The interview results showed that five companies transferred their records in boxes that were accompanied by a document listing the box's holdings. The results concur with the recommendation made by Parker (1999) that records should be transmitted together with a records transfer list.

The interview results also indicated that only two companies transferred records to storage places with a RTL and retained a copy of the list. This led to several dangerous possibilities: the possibility of losing some important records in the records storage places or records centre and the possibility of manipulation of the list that accompanied the transferred records. Since only one company had a formal observable semi-current records management programme, it was implied that semi-current records could be lost due to the fact that they were not controlled systematically. The findings also implied that most of the companies did



not regard their semi-current records as a vital company resource. In a related study Yusof and Chell (1999) also revealed similar findings whereby it was found that companies were unable to manage semi-current records properly. A survey conducted by Mnjama (2004) in several countries including Tanzania revealed the poor handling of semi-current records.

It could be concluded that when companies transfer their records with transmittal record list, they need to retain one copy of the list for records control purposes. It could also be concluded that since the majority of the companies did not have semi-current programme, it is important for them to establish one.

### **6.7.2 Approaches to inactive records**

Since files were regularly closed it was also important to determine the approaches to managing inactive records in the companies under the study. Table 22 illustrates a summary of the results. The results showed that four companies had no programme for inactive records, three companies stored archival records in separate secure areas, and two companies indicated that inactive records were not handled separately, but a responsible person coordinated and handled them in the office. The results also showed that one company developed a series description for archival records. The observational results revealed that only the one company with a series of description of archival records had an organized inactive records programme. The observational results agree with Bilotto and Guercio (2003) who reported that the majority of Italian companies did not preserve their documentary assets. Similar findings were also reported by Ndibalema (2001) who revealed that the NSSF heaped semi-current and inactive records together in a records centre.

As noted earlier, the study considers the observational results a reflection of the true state of affairs when there is a conflict between interview and observation results. Probably the main reason that the one company, which was observed, to have had an advanced records management systems had international connections. The observational results also revealed that the majority of the companies did not have any system to manage inactive records, thereby demonstrating unprofessional treatment of inactive records. The implication of the results is that there is some loss of archival records which goes unnoticed by the companies. Another implication is that if a system for inactive records were not established the

verification process for sustainability reporting purposes would be very difficult. Most of the companies were operating without consulting inactive records for their decisions. It is therefore recommended that a system to manage inactive records be established in all eight companies operating without an inactive records programme. The relationship between the use of semi-active records and inactive records and companies' performance demands further research.

## **6.8 Corporate records appraisal and retention scheduling**

Records appraisal is one of the most important functions of records management (Wato 2002; Penn, Pennix and Coulson 1994). Records are appraised to determine their value, quantity and the length of time they should be retained. Records are also appraised to help make decisions on what to retain and what to destroy (Katu 1999; Mwango 1996). Appraisal employs subjectivity in putting primary value or secondary value to records (Penn, Pennix and Coulson 1994: 107). Subjectivity is used to answer questions: "what should you keep, how should you keep it, how long should you keep it, and how should you dispose of it?" (Powell 2001). Therefore it was important in the current study to assess the appraisal and inventory of companies' electronic and paper based records and also to assess companies' retention schedules in order to address specific objective number seven of the study. The established findings are summarized in sections 5.11(xv & xvi). The discussion of the findings in terms of records appraisal and retention follows.

### **6.8.1 Corporate records appraisal**

As noted in the introduction above records appraisal is important. However, it was important first to identify if companies inventoried their records. Figure 22 summarizes the empirical findings regarding electronic records inventory. The results showed that eight companies did not inventory their electronic records while one company did.

In order to have an overall picture of the records inventory in the companies the records inventories were also assessed. Figure 23 summarised the study findings for paper based records. With a very slight difference from the results in the electronic records, the findings indicated that seven companies did not inventory paper based records while two companies did. Therefore it could be concluded that, overall, companies in this study did not inventory their records.

The findings of this aspect in records management imply that companies in this study were not aware of their records holdings. The findings suggested that records could be duplicated in the records management system without this being noticed. The findings also imply that records could be lost or manipulated without the knowledge of companies' management. Therefore, it is recommended that companies conduct a records inventory to support decisions recording corporate records management. Mnjama (2004: 35) also indicated the unavailability of inventories which led to time wastage in accessing information in the organizations.

According to Penn, Pennix and Coulson (1994: 91) the reasons for conducting a records inventory are: to become familiar with an organization's information holding, to establish procedures for managing the stock of records, to assess the information needs of users, to identify the storage media and to establish preliminary retention periods. Therefore, one could argue that a records inventory is a planning tool for needs assessment and records systems improvements. Therefore for companies with records inventories it was important to identify the use made of records inventories. Table 23 shows the uses indicated by the companies with records inventories. With the results in Table 23, the study confirmed that the majority of the companies did not conduct a records inventory and the two companies, one with both electronic and paper based inventories and one with only a paper based inventory, used the inventories to dispose of inactive records, to develop needs assessment and to develop a formal paper based records management plan.

With regard to records appraisal the study first examined the appraisal guidelines and disposal schedules for the companies' records. Table 24 summarizes information on the appraisal guidelines and disposal schedules collected from the survey. The findings showed that four companies did not have guidelines or schedules for electronic and paper based records. The implication drawn from the lack of guidelines and disposal schedules is that records in the companies were disposed of haphazardly without any proper procedures and probably some records were retained unnecessarily in the records storage rooms and equipment.

However, as indicated in Table 24, one response indicated a disposal schedule for electronic records and two had schedules for paper based records and three responses showed disposal

schedules for only paper based records. The results imply that companies in this study were not guided in considering the interconnectedness of appraisal guidelines and the disposal schedules of records.

The determination of whether appraisal guidelines existed was followed by the examination of records appraisal time. Table 25 presents the results for appraisal time in the companies under this study. The results indicated that only three companies out of nine companies appraised their records at the end of records' life cycle. The implications for the majority of the companies not appraising their records are not being aware of records duplication, not being aware of the physical condition of records, having no retention schedules and failing to utilize valuable space which could be available as a result of records appraisal. Scholars argue that appraisal of records at the end of records' life cycle is a common practice which is not efficient and not economical (Penn, Pennix and Coulson 1994: 107). In fact they remarked that appraising at the end of records' life cycle "...reflects a complete ignorance of the importance of managing recorded information". Penn, Pennix and Coulson (1994: 107) recommended records appraisal to take place at the beginning of record's life cycle. Since even the three companies in this study, which appraised their records, appraised them wrongly there is a need to take serious consideration of the issue of appraisal of both electronic records and paper based records in the exporting companies in the Iringa region. Therefore it was concluded that the majority of the companies did not appraise their records.

#### **6.8.2 Retention scheduling**

The results in Figure 24 indicated the availability of retention schedules in some companies in this study. The results showed that five companies did not have retention schedules for their records and four did. The interview results conflicted with observation results which showed that only one company had a written retention schedule for the company records. The conflict of interview and observational results is probably due to the tax law of Tanzania which requires companies to retain tax records for five years (Salum 2004). The reason is that tax administrators are allowed to request tax records of any year within the previous five years. Ellentuck (2004) advised companies to: "keep tax records until the tax authority can no longer question returns. The rule of thumb is to keep tax records for at least six years". Therefore, perhaps some companies answered yes when questioned about the availability of

retention schedules, assuming that the five year retention period for tax records was also applicable to other corporate records and particularly to sustainability related records.

In the case of the schedules being up-to-date, the results showed that four companies agreed that schedules were up to date and three did not have any opinion. In answer to whether the retention schedules were sufficiently detailed three companies did not have any opinion, one company disagreed and one mentioned that it did not apply. With regard to the right duration for the retention period only one company strongly agreed and four companies just agreed, three did not have any opinion and one indicated that it did not apply (Table 26). Since only one company was observed with a written retention schedule, it must be taken into consideration that probably the Tanzanian tax law could have influenced the results as shown in Table 26. It is important to establish formal, written retention schedules for all sustainability related records.

Two companies provided recommendations for improvements to records retention schedules. The first company recommended a ten year retention schedule in their company and the second company recommended subjective retention schedules. The recommendations imply that probably the company asking for a ten year retention schedule did not have a space problem for storage. With regard to the subjective retention schedule it is assumed that the respondent meant to have a retention schedule which would be case specific for each records series. The subjective recommendation implies that the respondent was not aware that the retention schedules are meant to treat each record series differently based on their importance.

## **6.9 Awareness of standards for records management and sustainability**

According to Ngulube (2003: 128) "Standards have been with us for a very long time." He further noted that standards act as a benchmark for systems requirements. There are two types of standards: legal standards and standards which emanate from best practices (Stephens 1996: 68). Therefore standards which cross-cut records management and sustainable development are the ISO 9000 series for quality certification and Environmental Management Systems (EMS) such as the ISO 14000 and EMAS. Mnjama (2000) demonstrated the importance of ISO 9000 quality standard in the field of records

management when he pointed out that quality issues acted as an incentive for Botswana Meat Commission to set up a records management system. Earlier Stephens (2000: 67) strongly argued that “ISO 9000 quality standards, constitute the strongest (if not the sole) factor providing the incentive for investment in better records management in the enterprise”.

It could be argued that almost the same records management requirements which apply to the ISO 9000 are also required for EMS certifications. For instance, Brorson and Gösta (1999) hinted that the major difference between the ISO 14001 (International EMS) and the EMAS (European based EMS) is the stringent requirements of the EMAS in the records management systems. An EMS contributes to sustainable development due to the fact that the environment is part of the three aspects of sustainable development. The ISO 9000 guidelines contribute to sustainable development due to the emphasis on quality products which are pollution free. For instance, Liebesman and Palmes (2004) proposed a model to use the ISO 9000 to mitigate the effects of Sulphur of Oxides (SO<sub>x</sub>) in the production areas as part of solving environmental problem and a direct contribution to sustainable development.

Therefore the awareness of the ISO 9000 standards and the ISO 14001 by the companies in this study was important. The findings which are summarised in sections 5.11(xxi) indicated that two companies were aware of both the ISO 9000 series and ISO 14001 series but were not certified. In fact, one of these companies received an international quality award that was presented in Geneva, Switzerland in 2004 (Salum 2004). The implication of the results is that companies in this study are probably losing markets due to their failure to certify products and services with international quality standards and EMS. Awareness and adoption of these sustainability related standards could promote products and services of the companies in this study and facilitate the establishment of proper records management systems which in turn could support sustainability reporting.

#### **6.10 Policies and procedures for corporate records management**

Records management policy is “the official charter for performing all records management functions and should, therefore, be written in terms as broad as possible [covering] recorded information throughout its life cycle” (Penn, Pennix and Coulson 1994: 33). Therefore it could be argued that policies are essential to guide records management operations. Policies could also act as a binding agreement between the organization and the employees for pursuing records management operations systematically (Sejane 2004). Policy needs to cover

the whole information infrastructure (Menou 1991: 58). Therefore based on the views of Menou (1991) and Penn, Pennix and Coulson (1994) it could be argued that at company level a policy should cater for the whole information life cycle. In order to partly address specific objective number ten, that is to identify the availability of corporate records management policies and top management support for corporate records management it was important to examine the availability and use of policies and procedures for the smooth management of records in the companies in this study. The empirical results established are summarized in the section 5.11 (xvii). The interpretation of the findings starts with the availability of policies and ends with availability of procedures.

#### **6.10.1 Availability of policies**

The fact that only three companies had integrated and coordinated policies covering paper records and electronic records could mean that some important records management activities in the companies were overlooked and not handled properly. It can also be argued that since policies provide guidelines and illustrate specific responsibilities for the corporate records management process, the lack of coordinated records management policies in the companies in this study implies records were not treated according to standards and records were treated irresponsibly. The study results were similar to the results in the study by Kaima (1999) in Papua New Guinea (NPG), which found a lack of records management policies that in turn led to haphazard management of records in NPG. The IRMT (2003) in Mnjama (2004) also reported the unavailability of organizational policies and procedures to guide records management.

It could be argued that since companies in this study operated without integrated policies and they did not have visible negative financial effects, there was no incentive to establish integrated policies. It could also be noted that the absence of integrated records management policy in more than a half of the companies in the current study could also be attributed to the fact that companies did not appreciate the importance of records management. This view is also evident in the title used for personnel responsible for records management. It was found that no company used “records manager” as the title for the head of the records management section. The lack of integrated records management policies also implies a lack of awareness of the advantages and disadvantages of a holistic approach to records management as a tool

to support informed decisions and to preserve evidence of a company's operations. As advocated by Menou (1991), all information produced should be covered by policy, and by Penn, Pennix and Coulson (1994: 33) all records management attributes must be included in the policy. Therefore it could be suggested that this area needs urgent attention to organize corporate records management systems systematically.

#### **6.10.2 Availability of procedures**

According to Menou (1991: 53) policies tell one what to do and not how to do it. Therefore, companies need to have procedures for records management explaining how to do it and who should do what (Parker 1999). In this case both policies and procedures are important in the organization. The findings regarding the written records management procedures (Shown in Figure 16) covered only the written procedures for electronic records migration from old software to new software. The results showed that five companies did not have written procedures for electronic records migration while four companies had written procedures for software migration from old software to new software. The weakness of this question is the fact that it did not cover all types of records and their attributes. However, the observation of records management policy did not indicate any signs of written procedures for corporate records management. Therefore it could also be concluded that there is a need for companies, while addressing the integrated records management policies, to address the issue of written procedures for corporate records management.

#### **6.11 Managerial issues for corporate records management systems**

According to the Doculabs Special Report on Records Management System (1998) cited in Kahn and Blair (2004) top management of firms had little interaction with records management sections and did not understand records management requirements. Therefore it could be argued that the smooth running of any records management system depends on the support and participation of top management of the companies. For instance, 70% of respondents in Ndibalema's (2001) study ranked top management support as a key to a successful records management programme. The current study determined the availability of a records committee to oversee corporate records management in terms of requirements, appraisal and retention schedule, financial investment for records management, future priorities of corporate records management and companies top management support. The



findings established are summarized in sections 5.11(xviii, xix and xx). The discussion is organized in terms of records committee, records expenditure, future priorities and management support.

#### **6.11.1 Records Committees**

Mnjama (1996a:35) and Mnjama (2004:41) repeatedly maintained that the establishment of a records committee is one of the ways to attract top management support. Furthermore, Mnjama (2004: 41) noted that “The committee should be responsible for the formulation of organization-wide records/information policies and procedures”. The results which were presented in Figure 25 in Chapter Five indicated that seven companies did not have a records committee to discuss matters related to corporate records management. The findings are similar to those of Yusof and Chell’s (1999) study which reported that the majority of the companies in their study did not have a committee to guide business records management. Based on Mnjama’s (2004) point that a records committee is responsible for setting up policies and procedure, the absence of such a committee could partly explain the unavailability of coordinated records management policies in the companies in this study. In addition, the results imply that records management issues were not accorded the weight they deserved in the companies in this study. There was a need to strengthen the participation of top management of the companies in the matters related to records management in order to involve it in the activities of the records committee.

It was also important to examine the number of records committee meetings in the companies with records committees. The results showed that in the two companies with records committees, the committee met only once a year. It was also deemed important to scrutinize the involvement of the records committee in the management of corporate records. In the two companies with a records committee, the committee was involved in developing and implementing company records policies, reviewing and approving of records disposal, establishing records plans and reviewing and supporting budget requests (Table 27). However, the lack of a records committee in the seven companies in this study implied the lack of proper corporate records management systems in these companies due to lack of company members’ involvement in the records management systems.

### **6.11.2 Records management expenditure**

It was also found that five companies showed an item of records management in their income and expenditure statements (Figure 26). The results implied that some of the management of the companies in this study were willing to invest money in corporate records management issues. The absence of items in the income and expenditure statement in the four companies implied that these companies were not investing in records management systems. It could be argued that due to the importance of records management for sustainability reporting in the exporting companies in the Iringa region, all exporting companies should invest in records management systems.

However, when asked to compare the amount of money used for records management in the previous year and the current year, four companies indicated that the amount used increased (Table 29). Five companies indicated that they had no records budget. The result which showed the increase suggested that if the management of the companies is made aware of the importance of the benefits of records management the management might be willing to increase the spending for the purposes of preserving the corporate memory of the company. Similar results were found in Ndibalema's (2001) study which reported that at the NSSF funding for records management was not a problem but records were not managed properly.

### **6.11.3 Future priorities and top management support**

Managing electronic records was ranked highly in the future priorities of the companies in this study. The findings in Table 30 also indicated that file management, training, and records inventories are also future priorities for records management. The implication of these findings is that some of the basic and important records management activities were not part of the priorities in these companies. The important basic records management activities ranked low in the priorities were: needs assessment, management of archival records, establishment of records committee and dealing with problems posed by active files. If these basic records management activities are not highly prioritised the records management system would rarely function properly.

With regard to the support of top management, regardless of the fact that the majority of the companies in this study indicated having no records management budget and no record committee, it was found that the top management of these companies was supportive of records management activities. Contrary to Ndibalema's (2001) findings which revealed a lack of top management support at the NSSF, the results in this study showed that two thirds of the companies strongly agreed that the top management of their companies was very supportive of records management improvements while one third just agreed. The results imply that if the top management was supportive and the records management departments had strategies to benefit from the support, the companies in this study would have smoothly operating records management systems. It is important for the records management departments in these companies to utilize the support from the company top managements.

The respondents were also asked to make any suggestions for improvements to records management systems. The most important comments issued were: Firstly, "the introduction of new records management systems", and secondly, "the updating of existing records management system to cater for technological changes". The implication of these comments together with support from the top management as indicated above is that if the model developed in this study could be introduced in the companies that provided the comments, the model could be adopted without difficulty.

## **6.12 Summary**

The purpose of this chapter was to interpret the empirical findings of the study. The interpretation of empirical data covered the findings of all the specific objectives indicated in section 5.0 except the last specific objective namely, to draw conclusions, make recommendations and propose a model depending on the study findings, which is covered in Chapter Seven. The discussion in this chapter briefly reconsidered the results that were established in Chapter Five and provided their implications for this study while cross-referencing some of the findings to other related studies whenever it was appropriate. The next chapter covers the summary of findings, conclusions based on research questions, recommendations based on the conclusions of the study, the existing model of corporate

records management systems, the proposed model of corporate records management system and areas for further research.

## CHAPTER SEVEN

# Summary, Conclusions, Recommendations and a new Model

### 7.0 Introduction

Chapter Six dealt with the interpretations of study findings. The main purpose of the interpretation chapter was to answer the question “what do the results mean in the context of this study?” This chapter restates the purpose of the study and the research question that guided the inquiry of this study. Furthermore, the chapter provides the summary of findings based on the research questions and the conclusions made. The conclusions are followed by recommendations based on the empirical findings of the research questions. The recommendations are followed by the presentation of a conceptual model of the existing records management system and the new conceptual model developed to fulfil the purpose of this study. The new conceptual model is followed by a discussion on the contribution of this study to the understanding of record life cycle theory in the context of the model developed. The last part of this chapter identifies areas for further research.

### 7.1 Purpose, research question and summary of findings

The following section restates the purpose of the study and research questions which guided the study. The section also presents summary of research findings.

#### 7.1.1 Research purpose and research questions

The purpose of the study was to develop a model for a corporate records management system with special focus to sustainability reporting in the Iringa region of Tanzania. In order to fulfil the purpose of the study, the following research questions guided the study:

1. What are the highest education levels attained and the records management training of heads of records management systems?
2. What records are kept in the corporate sustainability reporting systems?
3. Are the companies aware of the ISO 9000 and the ISO 14000?
4. What are the procedures in creating records for sustainability reporting?
5. What are the IT challenges for corporate records management systems?

6. What facilities are available to store records and control records from sustainability reporting?
7. What are the tools used to retrieve and distribute corporate records?
8. How records from sustainability reporting are transferred and disposed of?
9. What are the appraisal procedures and retention schedules for corporate records?
10. What are the management support and records management policies in the companies?
11. What are the conclusions, recommendations and an ideal model for corporate records management systems in the Iringa region?

### **7.1.2 Summary of research findings based on research questions**

#### **✓ Findings of the first research question**

The first research question inquired into the education levels and records management training of the heads of records management systems in the companies in this study. The following is the summary of the findings:

- Most of the companies used administrative officers with higher education to head records management systems in the companies in this study.
- Most of the administrators pursued in-house or paraprofessional records management training.

#### **✓ Findings of the second research question**

The second research question sought to find which records series were in the corporate sustainability reporting systems. The following is the summary of the findings:

- Sustainability related records in terms of environmental, economic and social aspects were kept by all companies except environmental related records with global impacts. The majority of companies in this study did not publish sustainability reports.

#### **✓ Findings of the third research question**

The third research question addressed the level of awareness of records management and sustainability cross-cutting standards. A summary of the findings follows:

- Only two companies were aware on the ISO 9000 (quality standards) and ISO 14001 (environmental management system) and the majority of the companies were not aware of these standards.

#### ✓ Findings of the fourth research question

The fourth research question considered ways of creating records in sustainability reporting. The summary of findings of the study is as follows:

- Most of the companies had used standardized forms and templates. Companies also registered newly received or created records.

#### ✓ Findings of the fifth research question

The fifth research question sought to determine what the challenges posed by information technologies were in corporate records management in the Iringa region. The following findings summarize the computer uses, e-mail capture in the electronic records systems and metadata application for electronic records.

- All companies used computers. The major uses of the computer were e-mail, word processing, spreadsheet and the Internet. The majority of the companies did not own websites.
- To capture e-mails in the records keeping systems the majority of the companies printed them.
- The majority of the companies in this study did not add metadata to electronic records.

#### ✓ Findings of the sixth research question

The sixth research question inquired into the records control procedures and storage in the existing records management systems. The following is the summary of the results starting with records control procedure, records storage facilities, loss of electronic and paper records, and vital records programmes, respectively.

- Companies in this study used a combination of centralized and decentralized approaches as records control systems. Companies also used movement books, personal secretaries and naming and number allocation to track records' movements.

- The majority of the companies used floppy diskettes and CDs to store electronic records. The majority of the companies also used wooden cabinets and steel cabinets to store paper based records.
- Companies experienced loss of electronic records due to computer failure.
- Companies did not have a vital records programme and a disaster management plan to address matters related to disasters and emergencies nor fire detectors, fire extinguishers, emergency telephone numbers nor simulation of disasters management practices.

#### ✓ Findings of the seventh research question

The seventh research question addressed retrieval and distribution tools for the existing corporate records management systems. The following summarizes the empirical findings of the study:

- Companies' filing systems supported users effectively. The companies' dominant filing systems were functional and subject based systems. Companies used different filing systems in different departments. Companies did not use finding aids.
- The retrieval of companies' recorded information was within six to ten minutes, which was too slow.

#### ✓ Findings of the eighth research question

The eighth research question sought to reveal the existing transfer and disposal methods of corporate records. A summary of the findings follows:

- Records were transferred in boxes accompanied by documents that listed the box's holdings.
- Companies did not have programmes for semi-active and inactive records even though companies closed files regularly.

#### ✓ Findings of the ninth research question

The ninth research question addressed the appraisal procedures and retention schedules for the corporate records management systems in the companies under study. The following is the summary of the findings:

- Companies did not inventory their records.



- The majority of the companies did not appraise records and did not have appraisal guidelines.
- Most of the companies did not have retention schedules.

#### ✓ Findings of the tenth research question

The tenth research question addressed the availability of policies, procedures and management support for corporate records management systems. The following summarizes the findings:

- Most of the companies did not have an integrated policy to guide records management activities, though some companies had uncoordinated specific policies in relation to records management.
- The majority of the companies did not have written procedures to accompany policies.

In the case of managerial support for corporate records management systems the study revealed that:

- Most of the companies did not have a records committee.
- Companies indicated commitment for records management investment though there was no specific budget for records management purposes.
- There was an increased trend of records related expenditures.
- The companies indicated electronic records management as their future priority concerning records management.
- The top management of the companies were supportive of the companies' records management improvements.

## 7.2 Conclusions about research questions

Based on the summary of the findings above, the following are the study conclusions:

### ➤ Title, education and records management training

Since the findings of research question number one showed that companies used an administrative officer to head their records management sections it implies that companies are not aware of the importance of using records managers. The fact that basic records management activities were not handled professionally while the heads of records management were in-house or paraprofessionally trained then it can be concluded that the

problem is with the type of the records management training pursued or the attitude of the administrative officers in pursuing records management activities. Furthermore, since the heads of corporate records management systems in this study had higher education then it can also be concluded that with proper records management training and motivation, there is a high probability that companies' administrators will handle corporate records management systems professionally.

➤ **Sustainability related records and reporting**

From the findings of research question number two, regarding sustainability related records and reporting, it can be concluded that even though all the companies in this study kept sustainability related records series, in terms of environmental related records, social related records and economic related records, the environmental related records with global impacts which scored the least need to be given serious consideration. Environmental related records with global impacts are important for decision regarding corporate responsibility in sustainability reporting. Such records if captured and properly managed could be used in environmental marketing for companies' products and services.

In the case of sustainability reporting it can be concluded that the purpose for which companies kept sustainability related records was not for sustainability reporting purposes. This conclusion is based on the fact that, even though the findings indicated that all the companies in this study kept sustainability related records, most of the companies did not publish any sustainability reports. In addition to the above conclusions, it can also be concluded that very little is known about the advantages and disadvantages of sustainability reporting among the companies in the Iringa region of Tanzania.

➤ **Awareness of standards cross-cutting records management and sustainability**

Since the findings of research question number three showed that only two companies demonstrated an awareness of the ISO 9000 and ISO 14001 systems, then it can be concluded that environmental and quality control authorities in Tanzania are not doing a lot to create awareness of these important standards.

➤ **Records creation and capture**

From the findings from research question number two as stated in the summary of research findings section 7.1.2 above, it can be concluded that companies in the Iringa region performed well in utilizing forms and templates. The advantages of using standardized forms and templates pointed out in the literature review of this study justify the use of these tools. It can also be concluded that, since most of the companies in this study registered all newly received or created records in the records management system and with a records management professional support in terms of proper records management training or by using experienced records management consultants, there is a high possibility of a smooth records management operations in the companies in this study.

➤ **Information technology in the records management systems**

With regard to information technologies in corporate records management in the Iringa region, it can be concluded that all companies in this study used computers in various records related activities. The major uses of computers were e-mail communication, word processing, spreadsheet and the Internet. It can also be concluded that the majority of the companies did not own websites, which, if used for sustainability reporting in the context of exporting business, could reach a wider audience with less cost.

In the case of capturing e-mail records in the records keeping system it can be concluded that companies print all the e-mail records. Therefore it is important to find ways to reduce volume of records from printed e-mails and other electronic records.

Regarding the information technologies aspect, it can also be concluded that companies in the Iringa region did not add metadata when creating or receiving electronic records. Since all companies used computers but none of them used electronic related management software such as computer aided dispatch, open archival information systems, document imaging, or document management software, therefore it could be concluded that the applications of these software are not known in these companies or are too expensive.

➤ **Record control procedure and storage facilities**

With regard to the question of facilities to store and control records, it can be concluded that most of the companies favored a combination of centralized and decentralized systems. The companies also used movement books and naming and number allocation to track the

documents, retention schedules and other related issues (Cornwell Management Consultants 2004).

#### **7.4 Developing a conceptual model**

In order to fulfil the major objective of the research, that to develop a model for a corporate records management system with special reference to sustainability reporting in the Iringa region, this section is divided into two parts. The first part presents a conceptual model of the existing system and the second part presents a conceptual model of the proposed system with its requirements.

##### **7.4.1 A conceptual model of the existing corporate records management system**

Based on the empirical findings of this study the following is the conceptual representation of the existing corporate records management system in the Iringa region.

#### 7.4.1.1 Description of existing model

The description of the existing model which is based on the empirical findings of the existing records management system in the Iringa region follows the assigned shaded numbers in Figure 28.

- ✚ Number (1) indicates that in the existing model sustainability related records are the inputs to the system. These sustainability related records are kept and captured in the old model of corporate records management system with the exception of environmental related records with global impacts.
- ✚ Number (2) indicates that the top management of the companies is supportive of the management of sustainability related records.
- ✚ Number (3) shows that companies in the existing model use standardized forms and templates to capture records.
- ✚ Numbers (4) and (5) show that in the existing model, records are captured in electronic or hard copy form and registered.
- ✚ Number (6) indicates that in the case of electronic records, only e-mails are printed in order to capture them in the records system. The current model did not provide proper management for word processed records, spreadsheet generated records, database generated records and Internet downloaded records.
- ✚ Number (7) shows that the records management system used a combination of centralized and decentralized strategies and functional and subject based filing systems for use and distribution of records.
- ✚ Number (8) demonstrates that few companies published sustainability reports. Number (8) also indicates that the systems did not have a provision for verifiers to verify or reconcile the content of sustainability reports and the sustainability recorded information in the record management system since nothing from sustainability reports comes back into the system.

#### **7.4.1.2 Shortcomings of existing model of records management system for sustainability reporting**

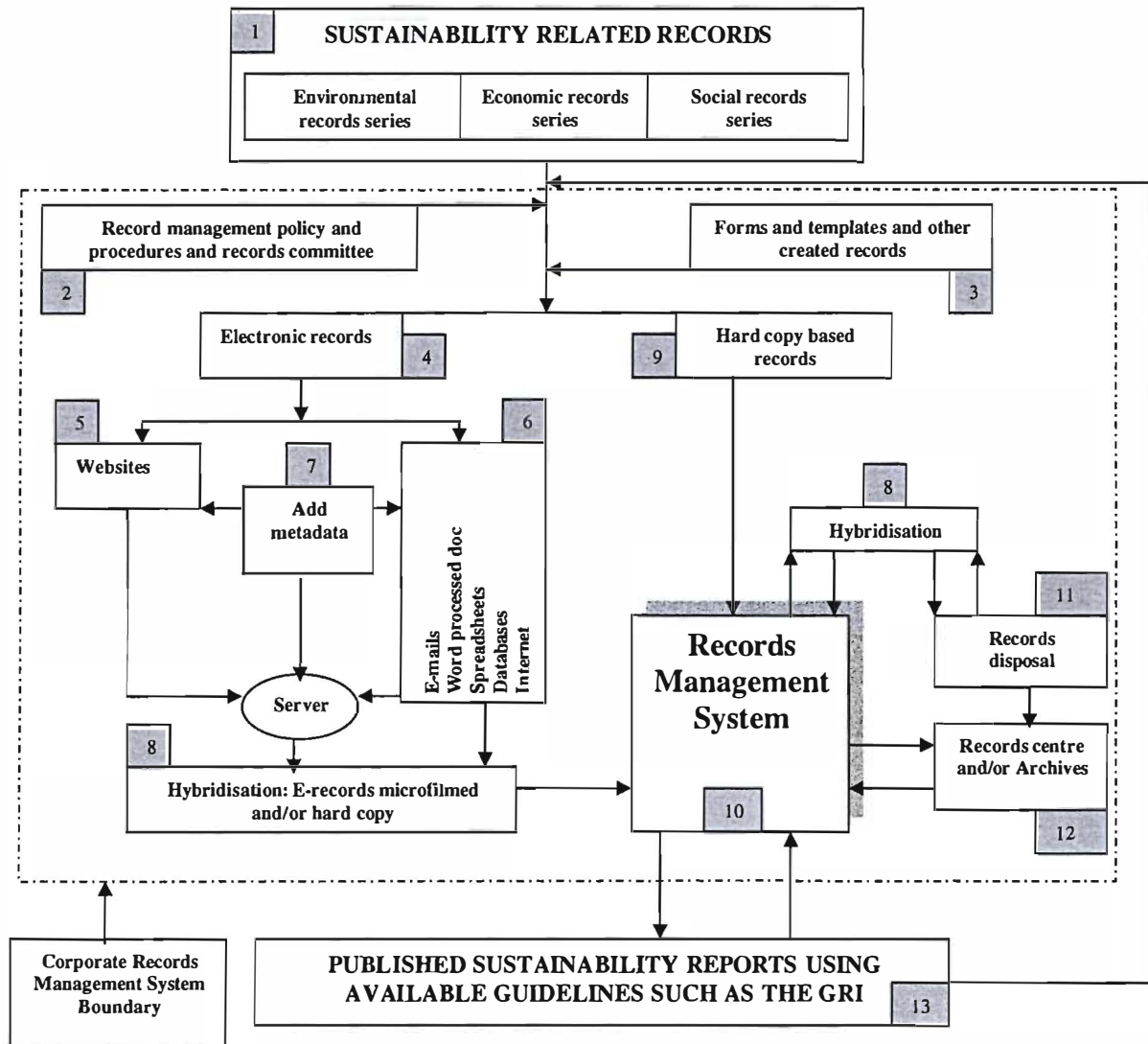
1. The input to the system ignored the environmental related records with global impacts. The input needs to comprehensively cover environmental related records, economic related records and social related records.
2. The existing model did not have a records management committee to set up policies and procedures to oversee the appraisal and retention schedules and the overall management of the corporate records systems.
3. The existing model did not have a programme for managing websites as part of corporate records. For instance, if the company publishes a web based sustainability report it must update its website yearly. The previous year's website will be overwritten but will still be needed as a record to demonstrate what was reported. The existing model did not have a subsystem to maintain the context and structure or metadata of the electronic records.
4. The existing model did not appraise, inventory or establish retention schedules for records series in the records management system.
5. The existing model did not have a disaster management plan or a programme for the management of vital records.
6. The existing model did not have a subsystem for treating semi-current records and inactive records.
7. The existing model used different filing systems in different departments which is likely to have increased direct and indirect costs for maintaining the records management system. The use of different filing systems also inhibited records management departmental resource sharing.
8. In the output of the system, records management did not provide for a smooth exchange of information between the system and the sustainability reporting system.

All the shortcomings of the existing model of corporate records management system above are addressed in the tentative new model of a corporate records management system which is developed in this study. The next section presents the proposed model of the study.

#### 7.4.2 A new conceptual model for a corporate records management system

Based on the shortcomings of the existing model indicated in 7.4.1 above and the literature review which, in addition to positioning the study with other studies, identified attributes necessary for the proposed model, the following is the conceptual model developed in this study. The model is subject to testing in order to be approved for utilization.

**Figure 29: Proposed model for a Corporate Records Management System (COREMS)**



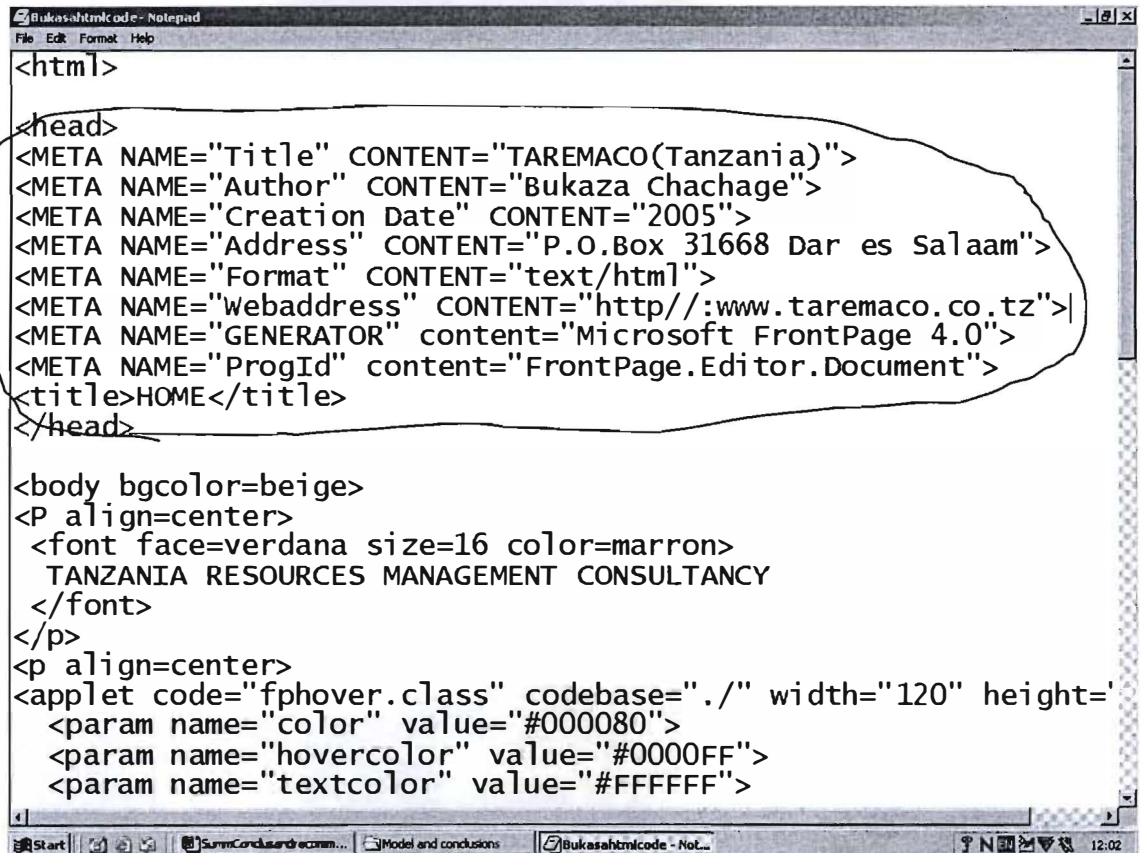
#### 7.4.2.1 Description of Corporate Records Management System (COREMS) model

The description of the proposed Corporate Records Management System (COREMS) model follows the shaded numbers provided in the model attributes in Figure 29.

- ✚ Number (1) shows that the proposed COREMS model requires the identification all the sustainability related records series related to specific companies as listed in the Global Reporting Initiatives guidelines that need to be kept and captured in the proposed COREMS model as an input to the system. The process of determining sustainability records could take the form of a sustainability information audit. Before adopting the proposed COREMS model, it is important for the companies to specify what exactly should be captured in the record keeping system. The captured records for sustainability reporting purposes add value to sustainability reporting by legitimizing sustainability reports and also providing legal, historical and administrative value to the organization. Unnecessary records should be prevented from entering the system by stringent policy and procedures.
- ✚ Number (2) indicates that a records committee must be established for the identification of what should be kept and captured in the records management system. The records committee, with the support of the top management demonstrated in the old model, formulates policies and procedures for the entire records management system.
- ✚ Number (3) shows that the proposed COREMS model uses forms and templates to capture records in the systems. Other records like memos and letters which do not use the forms and templates, are also captured, registered and indexed in the system.
- ✚ Numbers (4) and (9) demonstrate that records captured could be in the form of electronic records or hard copy (paper) records.
- ✚ Numbers (5) and (6) indicate that sustainability related records captured electronically could be in the form of websites (Number 5) or e-mails, word processed records, spreadsheet processed records, database processed records and internet downloaded records (Number 6).
- ✚ Number (7) shows that if an electronic record is in the form of a website, metadata must be added to maintain the evidential value of the website records. Depending on the preference and knowledge available, metadata could be added technically in the websites as shown in Figure 30.



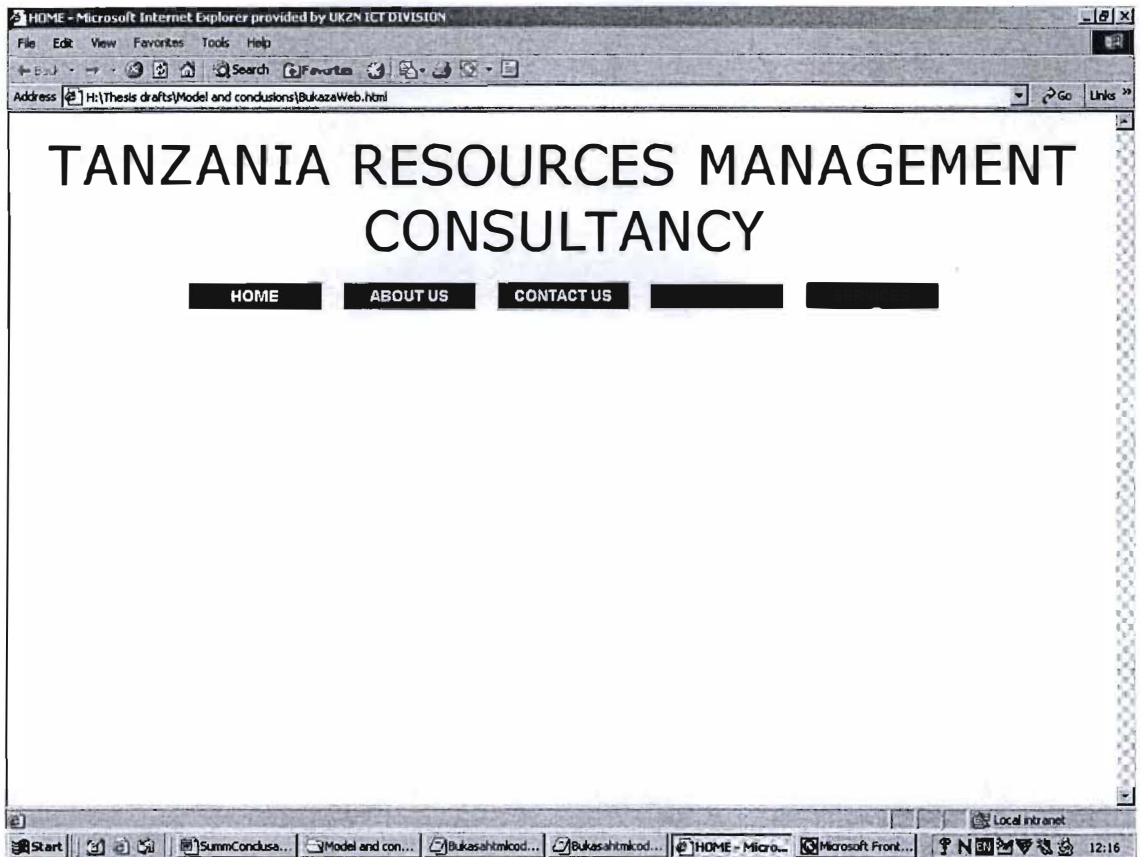
Figure 30: An example of adding metadata to websites

A screenshot of a Notepad window titled 'Bukasahmicode - Notepad'. The window contains HTML code. A section of the code, from the opening <head> tag to the closing </head> tag, is circled with a hand-drawn black line. This circled section contains several <META> tags for Title, Author, Creation Date, Address, Format, Webaddress, GENERATOR, and ProgId, followed by a <title>HOME</title> tag. Below the circled section, the <body> tag is shown with a beige background color. Inside the body, there is a centered paragraph with a large, brown, Verdana font, and an applet with specific parameters for color and text color. The taskbar at the bottom shows the Start button and several open applications, including 'SumConclusions...', 'Model and conclusions', and 'Bukasahmicode - Not...'. The system clock in the bottom right corner shows '12:02'.

**Source:** This method of adding metadata is adapted from the Dublin Core Initiative as presented by Hillmann (2000). The HTML code for the website in Figure 30 is generated using Microsoft Front Page 4.0 as indicated in the metadata information.

The circled/highlighted information in Figure 30 is the metadata added by the researcher in the website. The information could cover as many aspects as specified in the company's policy on metadata capture. As indicated in Figure 30, even though metadata information is added in the Hyper Text Mark-up Language (HTML) code, the front end of the HTML code does not show the metadata information as demonstrated in Figure 31. The metadata information could also be separate from the captured website records. Additionally, metadata could also be added manually outside the computer system.

**Figure 31: The front end of the HTML code with metadata**



**Source:** Generated by the researcher using Microsoft Front Page 4.0

If electronic records are in the form of e-mail, word processed records, spreadsheet prepared records, database prepared records, and Internet downloaded materials the information must be saved in the shared space or server as indicated in Figure 29. In the capturing of electronic records, metadata information is also added. The metadata in this case could be embedded in the electronic records or attached with the records. The metadata must capture all the necessary information regarding the creator, date of creation, system created and other information depending on the policy of the company.

The captured electronic records with the metadata should be saved in labelled folders preferably in Portable Document Format (PDF), Tagged Image Format (TIF) or other forms which have options for preserving records integrity. PDF and TIF records and documents could be protected from manipulation. The website, metadata and PDF or TIF

documents must be saved in a shared area or a central server where a corporate information system manager trained in records management could access the records for hybridization purposes. A Computer Output Unit could also be installed in a network environment to capture all the records and microfilm them automatically.

- ✦ Number (8) indicates that the corporate information systems manager accesses electronic records from the shared space or a server if it is a networked environment or uses less costly temporal storage devices like diskettes to transfer records from individual workstations to the hybridization space. In the hybridization process, the system uses hybridization as a document management strategy and as a subsystem to link electronic records and available records management techniques and knowledge. In this case, electronic records are converted straight into microfilm and paper based records are appraised and converted into microfilm as well. The computer to microfilm direct conversions is called Computer Output Microfilm (COM) (Robek, Brown and Stephens 1996). The COM unit could be installed in the same computer as a printer is, in a network environment or at an individual workstation. In fact, some COM units have the same production capacity as printers. For instance Robek, Brown and Stephens (1996) reported that some COM units could microfilm up to 160 pages per minute.
- ✦ The company could also first convert their electronic records to paper and then later convert to microfilm using a special microfilm camera. The company must have a microfilm reader to facilitate access to microfilmed records. If the company opted for paper conversion there must be a printing strategy and policy in order to reduce the costs of paper. For instance, the company could introduce printers which accommodate four pages double sided printing methods. Doubtless some records could be in the form of hard copy which could be taken directly to the records management system at No.10. The economic feasibility of using COM systems or the best option between direct conversion to microfilm from the computer and printing first before converting to microfilm requires further research.
- ✦ Number (9) shows that hard copy or paper based records are captured, processed and entered straight into the system.

- ✚ Number (10) symbolizes the system in which the traditional records management elements such as registration, classification, indexing, appraisal, inventoring, retention schedules and disposition, tracking systems, disaster management plans, filing systems, durable physical storages such as cabinets and shelves, temperature control devices, visible finding aids and other assistances, are to be carried out. The elements in this phase could be adopted from ISO 15489 or MoReq. One could argue for the use of TRIM (tower software) in this system. However, experiences of the use of TRIM software show that the software is very expensive. Stabbins (2001: 86) indicated that TRIM tower software and workflow software cost 2 million Rand for local solution and 6 million Rand for others. These costs cannot be justified easily in a private company environment. The main reason is the fact that the payback period of this expensive records management software cannot be determined easily. Therefore, the study prefers locally available and affordable knowledge and technology.
- ✚ In Numbers (11) and (12), records with less administrative value need to be retired to the records centre (11) and inactive records need to be moved to archives (12). The archives and records centre could be in less costly buildings or in a less used room within the company or in commercial archives, depending on the options available. When records are transferred to the archives or records centre, the records must be accompanied by an RTL. The copy of the RTL must be returned to the company or the records management system after the RTL has been receipted by the person responsible in the records centre or archives.

Some paper based records from Number (10) will be appraised and converted to microfilms and returned to the records management system. After conversion, the paper records could be destroyed as they are redundant in the system. The recorded information in the destroyed paper records would still be in the records management system and could be accessed. It is important to note that microfilms could be converted into paper again if necessary, using a copier with a viewing device called a reader printer (Robek, Brown and Stephens 1996). Therefore, the intention is not to remove records from the records management system but rather to convert paper based records to less space occupying and less costly media. Basically, the COREMS model eliminates value based decisions in records appraisal (Ngulube 2001) and

would save almost 98% of space that would be occupied by paper based records (Robek, Brown and Stephens 1996).

- ✦ Number (13) shows that sustainability reporting is published using information extracted from the records management system and also that verifiers can confirm the information published against recorded information in the records management system. The published sustainability report is also an input to the records management system in the form of websites overwritten for updates and sustainability reports published in paper formats. The input to the records management system is indicated by the loop of the arrow which goes back as a input to the system.

#### **7.4.2.2 Basic Requirements for adapting the COREMS model**

To use the COREMS model some of the factors to take into consideration are outlined in Table 31. The model could be adopted by exporting companies in the Iringa region and other companies that would like to meet international standards such as the ISO 9000 for quality assurance and the ISO 14001 for international environmental management systems compliance.

**Table 31: Tentative list of system requirements for a COREMS model adaptation**

<b>System requirements</b>	<b>Level of importance (in the form of high, medium and low)</b>
Corporate records management policy and Procedures which are integrated with other information subsystems in the company	High
Records management committee (This also must not be for records only, it must encompass other information subsystems)	High
Records management trained staff	High
Forms and templates and registration and indexing procedures for all records created or received	High
Computer systems	High
Application software	Medium
Metadata system	High
PDF and TIF	High
Central server	High
Electronic storage facilities	High
Printer	High
CD burner	Medium
COM Unit or Microfilm Camera	High
Microfilm reader	High
Copier system with reader printer	Medium
Computer Assisted Retrieval system for microfilms if the amount is huge	High
Records centre and archives	High
Record management standard such as the ISO 15489	Medium
Files and microfilms tracking system	High
Files and microfilms indexing and classification	High
Cabinets and shelves	High

## **7.5 Implications of the present study for theory**

The modified records management life cycle used in this study partitioned the life of records into four stages: the pre-natal, current, semi-current and inactive phases. There are two major contributions to the understanding of the records life cycle theory.

The first contribution of this study is that in the proposed model when the records outlive the retention schedules, they are not destroyed but rather converted to microfilm which reduces the storage space and costs of maintaining records in the system. The hybridization appraisal method is used for paper based records as suggested in Ngulube (2001). In the proposed model hybridization is also used as a link between computer generated information and traditional records management processes using COM units. Basically, in the COREMS model, records do not leave the system as in the disposal of record life cycle theory.

The second contribution of this study is the fact that in the proposed COREMS model the top management of private companies are required to make an input early on in the initial system, in terms of policies and procedures and formulation of a records committee in the pre-natal stage of the records creation or receipt. The involvement of top management from the beginning could facilitate the establishment of stringent policies and procedures to capture only necessary records. The involvement of top management also positions the records management activities in the company as a contributor to the core business of the company. The managed sustainability related records in this case bring the company goodwill which normally appears as an asset in the balance sheet of companies. Therefore, in the context of the COREMS model, persons responsible for records management are partly managing the companies' goodwill.

## **7.6 Suggestions for future research**

The study identified the following areas for further research:

1. Action research could be carried out to test the COREMS model in private companies which want to publish sustainability reports and in other private companies also. The research in this case could reveal and document step by step

processes in implementing the COREMS model. The action research could also reveal all the system requirements for the implementation of the COREMS model.

2. The titles given to records management functions and the implications for the performance of records management systems in private companies need further research.
- 3 Identifying a proper training method for private companies' records management personnel needs further research. The research could address or test the relationship between corporate records management performance and the type and place of training received, respectively.
- 4 Research should be carried out to establish the monetary returns of corporate records management investments.
- 5 Research should also be carried out to establish the relationship between company performances in terms of profit and other performance measures and sustainability report publishing.
- 6 The economic feasibility and best option between converting to microfilm directly from the computer or printing first before converting to microfilm also demands further investigation.
- 7 Finally research should be carried out to establish the utility of the model to companies that want certification from organizations such as the ISO.
- 8 Archival or historical study to trace the emergence of sustainability concepts also needs further research.
- 9 A study to explore ways of comprehensively capturing environmental related records, is needed.



## References

### Abbreviations of references used in the thesis <sup>6</sup>

ACCIS	see	Advisory Committee for the coordination of Information Systems
CIA	see	Central Intelligence Agency
DETR	see	Department of the Environment, Transport and Regions
EEA	see	European Environmental Agency
ESRF	see	Economic and Social Research Foundation
ESRF	see	Economic and Social Research Foundation
ESRI	see	Environmental Systems Research Institute
GRI	see	Global Reporting Initiative
IRMT	see	International Records Management Trust
ISO	see	International Standards Organization
KPMG	see	Klynveld Peat Marwick and Goerdeler
LEAT	see	Lawyer's Environmental Action Team
NARA	see	National Archives and Records Administration
NEAP	see	National Environmental Action Plan
UNEP	see	United Nations Environment Programme
URT	see	United Republic of Tanzania
US EPA	see	United States Environmental Protection Agency
WBCSD	see	World Business Council for Sustainable Development
WCED	see	World Commission on Environment and Development
WEPA	see	Women Environmental Protection Agency
WRI	see	World Resource Institute

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<sup>6</sup> The method of presenting abbreviations used in the thesis for references is adapted from Stilwell (1994).

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## **Appendices**

### **Appendix 1: Introduction letter of the supervisor**

School of Human and Social Stud

Private Bag X01 Scotts  
Pietermaritzburg 3209 South A.  
Telephone (033) 260 5320/4  
Fax (033) 260 4  
General enqui  
e-mail: acutt@nu.a  
padayacheep@nu.a  
www.hs.unp.ac.za/huso.

14 August 2003

**TO WHOM IT MAY CONCERN**

**Letter of introduction: Mr. Bukaza Chachage Student No. 202520141 (Information Studies Programme)**

This letter serves to introduce Mr. Bukaza Chachage who is registered as a PhD student at the University of Natal. Mr. Bukaza Chachage is currently carrying out a study on developing a model for a corporate records management system with special reference to sustainability reporting in Iringa Region, Tanzania. The objective of the study is to produce a description of the current practice of records management in the Iringa Region in Tanzania. The information obtained and the resultant recommendations could assist in decision-making.

In order to undertake the study Mr. Chachage will need to distribute a questionnaire and carry out some interviews among staff responsible for business records and other stakeholders. In that light, the Information Studies Programme kindly requests you to render any possible assistance to Mr. Chachage in order to facilitate the conduct of the study.

If you require any clarification pertaining to the study, please, feel free to contact Dr. Patrick Ngulube, who is the supervisor of the research, on telephone 27332605972 or email [ngulubep@nu.ac.za](mailto:ngulubep@nu.ac.za).

Thank you in advance in anticipation.

Yours faithfully



Dr. Patrick Ngulube (Supervisor).  
Senior Lecturer

**Appendix 2: Letter from Regional Administrative Officer (RAS)  
introducing researcher to the companies in the Iringa region**



**UNITED REPUBLIC OF TANZANIA  
PRESIDENT'S OFFICE  
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**

IRINGA REGION  
TEL: 702021/702715  
FAX: 2702082/2702175

REGIONAL COMMISSIONER'S OFFICER,  
P. O. BOX 858,  
IRINGA.



In reply please quote:

Ref. No. RAS/IR/E.10/64/II/128

21<sup>ST</sup> June, 2004

The Vice Chancellor,  
University of Dar es Salaam,  
P. O. Box 35091,  
**DAR ES SALAAM.**

RE: **UNIVERSITY SAFF AND STUDENTS RESEARCH  
CLEARANCE – MR BUKAZA CHACHAGE**

Please refer to your letter Ref. No. AB3/12(B) of 2<sup>nd</sup> June, 2004.

2. I am pleased to inform you that permission is hereby granted to Mr Bukaza Chachage who is your bonafide student to carry out his research on 'Developing a Model for a Corporate Records Management with Special Reference to Sustainability reporting in Iringa Region, Tanzania' from June 2004 to October, 2004 as requested.

  
**P. W. Kihaga**

For: REGIONAL ADMINISTRATIVE SECRETARY  
**IRINGA**



P.O. BOX 35091 • DAR ES SALAAM • TANZANIA

Ref. No: AB3/12(B)  
Date: 2<sup>nd</sup> June, 2004  
To: The Regional Administrative Secretary,  
IRINGA REGION.

## UNIVERSITY STAFF AND STUDENTS RESEARCH CLEARANCE

The purpose of this letter is to introduce to you **Mr. Bukaza Chachage** who is a bonafide student of the University of Dar es Salaam and who is at the moment conducting research. Our staff members and students undertake research activities every year especially during the long vacation.


In accordance with a government circular letter Ref.No.MPEC/R/10/1 dated 4<sup>th</sup> July, 1980 the Vice-Chancellor was empowered to issue research clearances to the staff and students of the University of Dar es Salaam on behalf of the government and the Tanzania Commission for Science and Technology, a successor organization to UTAFITI.

I therefore request you to grant the above-mentioned member of our University community any help that may facilitate him to achieve research objectives. What is required is your permission for him to see and talk to the leaders and members of your institutions in connection with his research.

The title of the research in question is **"Developing a Model for a Corporate Records Management System with special reference to sustainability reporting in Iringa Region, Tanzania"**.

The period for which this permission has been granted is **June, 2004 to October, 2004** and will cover the following areas/offices: **Iringa Region**.

Should some of these areas/offices be restricted, you are requested to kindly advise him as to which alternative areas/offices could be visited. In case you may require further information, please contact the Directorate of Research and Publications, Tel. 410500-8 Ext. 2087 or 2410743.

  
Prof. M.L. Luhanga  
VICE-CHANCELLOR  
UNIVERSITY OF DAR ES SALAAM  
P.O. BOX 35091  
DAR ES SALAAM

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#### **Appendix 4: Letter from researcher to University of Dar Es Salaam**

Bukaza Chachage  
P. O. Box 31668  
Dar Es Salaam.  
Tanzania

1/06/2004

Office of Vice Chancellor  
University of Dar Es Salaam  
P. O Box 35091  
Dar Es Salaam.  
Tanzania

u.f.s. The Head,  
Department of General Management  
Faculty of Commerce and Management  
University of Dar Es Salaam

Dear Sir,

**RE: Research Clearance**

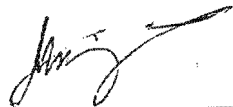
The above heading refers. I am an assistant lecturer in the Department of General Management, Faculty of Commerce, currently on study leave at the University of Kwazulu-Natal, Republic of South Africa. I am conducting a doctoral research study titled:

*"Developing a Model for a Corporate Records Management System with Special Reference to Sustainability Reporting in Iringa Region, Tanzania".*

In order to collect data from the study population of companies in Iringa region, I am requesting your assistance to issue a research clearance letter for the period of June – October 2004.

Thank you in advance.

Yours faithfully,



Bukaza Chachage

c.c. The Dean, Faculty of Commerce and Management

## **Appendix 5: Introduction letter for pretesting instruments**

Dear colleague,

I am a student at the University of Kwazulu Natal in the Republic South Africa. I am doing a doctorate research project titled:

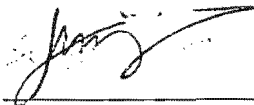
*“Developing a Model for a Corporate Records Management System with Special reference to Sustainability Reporting in Iringa Region, Tanzania.”*

The main purpose of this research is to develop a model for an internal corporate records management system, which caters for manual and electronic records in order to facilitate smooth corporate sustainability reporting processes. The target population of the study is the companies that are involved in the exportation business in Iringa region.

I am in the final stage of preparing data collection instruments. In order to yield relevant data and have appropriate data collection tools in terms of validity, reliability and contents, I am conducting a pre-test on the interview protocol/questionnaire, which will be used for the study. Therefore, I am requesting for your assistance to spare a few minutes to scrutinize my interview protocol/questionnaire and comment on its contents and clarity. Your contribution will be highly appreciated.

Thank you in advance.

Yours faithfully,



Bukaza Chachage

Home: 255 (0) 22 2774405

Mobile: 255 (0) 744 074025

Email: [Bukaza@avu.org](mailto:Bukaza@avu.org)

## **Appendix 6: Interview protocol**

# **Developing a Model for a Corporate Record Management System with Special Reference to Sustainability Reporting in Iringa Region, Tanzania**

## **Interview protocol**

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The major objective of this study is to develop a model for a corporate records management system to facilitate sustainability reporting.

The response of this interview protocol will help to understand the existing record(s) management system in order to develop a generic model for a better corporate records management system focusing on sustainability reporting in Iringa region, Tanzania.

Name of the company \_\_\_\_\_

Date of interview \_\_\_\_\_

Place of interview: \_\_\_\_\_

### **SECTION 1: BACKGROUND INFORMATION**

#### **1.1 The title of person being interviewed Please check one**

- 1=[ ☐ ] Records manager
- 2=[ ☐ ] Administrative officer
- 3=[ ☐ ] Information manager
- 4=[ ☐ ] Information officer
- 5=[ ☐ ] Head of registry
- 6=[ ☐ ] Information manager
- 7=[ ☐ ] Corporate information system manager
- 8=[ ☐ ] Other, please specify:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### **1.2 What is the highest education level reached by the person who is in charge of records management in the company? Tick all that apply**

- 1=[ ☐ ] Standard seven
- 2=[ ☐ ] Form four
- 3=[ ☐ ] Form six
- 4=[ ☐ ] Professional certificate
- 5=[ ☐ ] Diploma
- 6=[ ☐ ] First degree
- 7=[ ☐ ] Postgraduate diploma
- 8=[ ☐ ] Honours
- 9=[ ☐ ] Masters
- 10=[ ☐ ] PhD.
- 11=[ ☐ ] Others, please specify:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**1.3 Which of the following describes the training of the person who is in charge of records management in your company: Tick all that apply:**

- 1=[ ☐ ] A person responsible for records management is trained in the records management college.
- 2=[ ☐ ] A person responsible for records management is paraprofessional trained
- 3=[ ☐ ] A records management personnel pursued an in house training
- 4=[ ☐ ] The records responsible person attended secretarial college
- 5=[ ☐ ] The records responsible person attended a computer training course
- 6=[ ☐ ] Others, please specify:

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## SECTION 2: TYPES OF RECORDS CREATED AND RECORD CAPTURE

### 2.1 Which among the following records series are created or received in your company?

[Tick all that apply]:

CODE	RECORDS	
1=	Energy bill records	
2=	Energy expenditure records	
3=	Emissions quantification records	
4=	Emissions composition records	
5=	Fuel records	
6=	Transportation cost records	
7=	Suppliers records	
8=	Production records	
9=	End of life recycled materials records	
10=	End of life reused materials records	
11=	Material balance records	
12=	Water bill records	
13=	Waste water composition records	
14=	Waste water quantification records	
15=	Land use records	
16=	Biodiversity records	
17=	Chemical uses records	
18=	Environmental regulations records	
19=	Environmental policies records	
20=	Environmental guidelines records	
21=	Sustainability meetings records	
22=	Financial accounting records	
23=	Worker benefits records	
24=	Production records	
25=	Tax records	
26=	Contribution to road infrastructure maintenance records	
27=	Contribution to hospital/dispensary building records	
28=	Contribution to water infrastructure building records	
29=	Contribution to community education development records	
30=	Contribution to community sports facilities records	
31=	Contribution to community leisure facilities records	
32=	Contribution to human rights issues records	
33=	Improvement of working environment records	
34=	Employee appraisal records	
35=	Human resource list records	
36=	Staff development records	
37=	Reward records	
38=	Staff training records	
39=	Gender issues records	
40=	Social contribution from suppliers records	

### 2.2 (a) Do you publish an annual sustainability reports?

1=Yes [    ]      2=No [    ]

**2.2 (b) Which form of sustainability report do you publish?**

- 1=[ ☐ ] The company does not publish sustainability report  
2=[ ☐ ] Internet  
3=[ ☐ ] Printed form

**2.3 Are you aware on the International Standards Organization (ISO) 9000 and ISO 14000?**

- 1=Yes [ ☐ ]      2=No [ ☐ ]

**2.4 Do you have standardized forms for creating records?**

- 1=Yes [ ☐ ]      2=No [ ☐ ]

**2.5 Does the company use computer(s) in various activities?**

- 1=Yes [ ☐ ]      2=No [ ☐ ]

**2.6 Which of the following use of computer(s) apply in your company:**

Tick all that apply:

- 1=[ ☐ ] Computers are not used  
2=[ ☐ ] Electronic mail (email)  
3=[ ☐ ] Local area network  
4=[ ☐ ] Geographical Information System  
5=[ ☐ ] Computer aided dispatch (including optical disk)  
6=[ ☐ ] Document management software  
7=[ ☐ ] Electronic document imaging  
8=[ ☐ ] Scanning paper records to create computer images or texts  
9=[ ☐ ] Word processing  
10=[ ☐ ] Spreadsheet  
11=[ ☐ ] Document management system  
12=[ ☐ ] Open archival information system  
13=[ ☐ ] Electronic records management systems  
14=[ ☐ ] Database management services  
15=[ ☐ ] Statistics  
16=[ ☐ ] Graphics  
17=[ ☐ ] World Wide Web  
18=[ ☐ ] Internet access  
19=[ ☐ ] Others, please specify:

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**2.7 Which of the following electronic records management policies does your company have?**

- 1=[ ☐ ] No computer(s)  
2=[ ☐ ] Creation  
3=[ ☐ ] Storage  
4=[ ☐ ] Access  
5=[ ☐ ] Use

**2.8 Does the company own a website?**

1=Yes [ ] 2=No [ ] if yes explain how the website as part of electronic records is managed and used:

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**2.9 Does the company use extensible mark-up language when transporting information between computer information systems?**

1=No computer(s) [ ] 2=Yes [ ] 3=No [ ]

**2.10 Do you have templates for creating electronic records?**

1=No computer(s) [ ] 2=Yes [ ] 3=No [ ]

**2.11 When receiving and creating paper or electronic records which of the following describes what you do?**

- 1=[ ] Register all the records received or created  
2=[ ] Create indexes for all created or received records  
3=[ ] Link all the created records to other records

**2.12 Do you have a company policy for creating and receiving emails?**

1=Yes [ ] 2=No [ ]

**2.13 How do you capture email in the record keeping system?**

- 1=[ ] No email  
2=[ ] Classify email  
3=[ ] Add metadata  
4=[ ] Print email  
5=[ ] Save in the server  
6=[ ] Save in the electronic storage media  
7=[ ] Others, please specify:

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**2.14 Do you add metadata for electronic records created or received?**

1=No electronic records [ ] 2=Yes [ ] 3=No [ ]

**2.15 What kind of metadata has the company adopted?**

- 1=[ ] Dublin Core  
2=[ ] MIREG  
3=[ ] Moreg  
4=[ ] Open Public Information Online  
5=[ ] Others, please specify:

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**2.16 Which of the following explains the application of metadata in your company?**

Tick all that apply

- 1=[ ☐ ] We don't add metadata to our electronic records  
2=[ ☐ ] The metadata information is entered manually  
3=[ ☐ ] The metadata is automated in the computer system  
4=[ ☐ ] Metadata information is attached separate with the records  
5=[ ☐ ] Metadata is incorporated in the record  
6=[ ☐ ] All metadata are located in the codebook

**2.17 Is each record created by an authorized person?**

1=Yes [ ☐ ] 2=No [ ☐ ] if no please explain:

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**SECTION 3: RECORDS MAINTAINANCE, USE, AND ACCESS**

**3.1 Which of the following describe the record control system in your company?**

Please tick only one:

- 1=[ ☐ ] The record control system in our company is centralized  
2=[ ☐ ] The record control system in our company is decentralized  
3=[ ☐ ] The record control system is a combination of centralized and decentralized

**3.2 Which of the following explains the file tracking or control system in your company**

- 1=[ ☐ ] The files are controlled using movement book(s)  
2=[ ☐ ] The files are controlled using file movement card(s)  
3=[ ☐ ] Files are tracked electronically  
4=[ ☐ ] Others, please specify:

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**3.3 Which of the following describes the maintenance and storage facilities of records in your company:**

Tick all that apply:

- 1=[ ] The company has a wooden cabinet for keeping records files
- 2=[ ] The company has a steel cabinet for keeping records
- 3=[ ] The company has a combination of steel and wooden cabinets to keep records
- 4=[ ] All the cabinets are clearly labelled
- 5=[ ] The cabinets are closed by padlock or lock
- 6=[ ] The company has enough cabinets and space for records storage
- 7=[ ] The company keep records on the shelves
- 8=[ ] The company keep records on the floor
- 9=[ ] The company keeps records on compact disc (CD)
- 10=[ ] The company stores records on digital versatile disc (DVD)
- 11=[ ] The company stores records on floppy diskettes
- 12=[ ] The company stores records in the WORM format
- 13=[ ] The company stores records on CD ROMs
- 14=[ ] The company keeps records on rewritable CD (CD R)
- 15=[ ] The company keeps records in the central server
- 16=[ ] The company keeps records in individual workstations
- 17=[ ] The company keeps records in boxes
- 18=[ ] The company maintains records in folders
- 19=[ ] The company keeps semi current records in the on site record center
- 20=[ ] The company keeps semi current records in the off site records center

**3.4 Which of the following best describes the transfer of records to the records center:**

Please tick that apply:

- 1=[ ] The company does not use records center
- 2=[ ] Records are transferred in the boxes accompanied by a document listing all the records in the box
- 3=[ ] The company retains one copy of the list after verification by record center
- 4=[ ] Others, please specify:

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**3.5 Which of the following describes the filing system of the company:**

Check that apply:

- 1=[ ] The company's filing system is numerical
- 2=[ ] The company use alphabetical filing system
- 3=[ ] The company use alphanumerical filing system
- 4=[ ] The filing system is subject based
- 5=[ ] The filing system is geographically arranged
- 6=[ ] The filing system is functional
- 7=[ ] The filing system is chronological
- 8=[ ] The filing system is sequential
- 9=[ ] The filing system is randomly arranged
- 10=[ ] Others, please specify:

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**3.6 Does the filing system effectively support the users' work functions**

1=Yes [ ] 2= No [ ] 3= Don't know [ ]

**3.7 Are there record finding aids?** 1= Yes [ ] 2=No [ ] 3= don't know [ ]

**3.8 Are the finding aids easily accessible to users?**

1= Yes [ ] 2=No [ ] 3=No finding aids [ ]

**3.9 Are there any other forms of assistance to records users?**

1=Yes [ ] No 2=[ ] If 'yes' please explain what kind of assistance

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**3.10 Does the company use marketing strategies to publicize their records to company stakeholders?**

1=Yes [ ] 2=No [ ] if 'yes' please explain what kind of marketing strategies are used

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**3.11 How long does it take to retrieve information from paper-based records?**

Tick only one:

1=[ ] Less than 5 minutes

2=[ ] 6 – 10 Minutes

3=[ ] 11 – 15 Minutes

4=[ ] 16 – 30 Minutes

5=[ ] 31 – 60 Minutes

6=[ ] 61 and above

7=[ ] I don't know

**3.12 Has the company experienced any loss of electronic or paper files?**

1=Yes [ ] 2=No [ ]

**3.13 What do you think is the cause of the loss?**

1=[ ] No loss of files

2=[ ] The loss of files is due to

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**3.14 Do policies exist to protect records from being altered or manipulated?**

1=Yes [ ] 2=No [ ] 3=Don't know [ ]

**3.15 Are there policies in place to ensure proper migration of records from old software and hardware to new software and hardware?**

1=No computers[ ] 2=Yes[ ] 3=No [ ]

**3.16 Are there procedure to ensure proper migration of records from old software and hardware?**

1=No computers[ ] 2=Yes[ ] 3=No [ ]

**3.17 Which of the following describes the vital records program and disaster control plan?**

1=[ ] The company has a vital records program

2=[ ] Vital records are duplicated and the two copies are kept separate safely

3=[ ] The company has a disaster control plan

4=[ ] The disaster management plan has been simulated and communicated to everybody in the company

5=[ ] The company has installed fire detectors in the records storage sections.

6=[ ] The company has installed extinguishers and sprinkler systems

7=[ ] The company has emergency telephone numbers

8=[ ] There is a designated person responsible for company security

9=[ ] None of the above

#### **SECTION 4: APPRAISAL, RETENTION AND DISPOSAL OF RECORDS**

**4.1 Are the files regularly closed?** 1=Yes [ ] 2= No [ ]

**4.2 Are there retention schedules?** 1= Yes [ ] 2=No [ ]

**4.3 What is your reaction to the following statements?**

Please tick one for each statement:

	Strongly agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly disagree 5	Does not apply 6
The schedules are generally up to date						
The schedules are sufficiently detailed						
The retention period time is right						

**4.4 Do you have any comment on how retention could be improved:**

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**4.5 Have electronic records been inventoried?** 1=No inventory [ ] 2=Yes [ ] 3=No [ ]

**4.6 Have paper-based records been inventoried?**

1=No inventory [ ] 2= Yes [ ] 3=No [ ]



**4.7 How has the company used the record inventory so far?**

Tick all that apply:

- 1=[ ☐ ] No inventory
- 2=[ ☐ ] Disposed unnecessary inactive records
- 3=[ ☐ ] Created inactive records storage area
- 4=[ ☐ ] Improved management of files
- 5=[ ☐ ] Developed needs assessment
- 6=[ ☐ ] Developed formal records management plan for electronic records
- 7=[ ☐ ] Developed formal records management plan for paper based records
- 8=[ ☐ ] None of the above

**4.8 Which of the following describes the appraisal and disposition of records in your company? Tick all that apply:**

- 1=[ ☐ ] The company has guidelines for electronic records appraisal
- 2=[ ☐ ] The company has guidelines for paper based record appraisal
- 3=[ ☐ ] The company has a disposal schedule for electronic records
- 4=[ ☐ ] The company has a disposal schedule for paper-based records
- 5=[ ☐ ] None of the above

**4.9 Which of the following describes the appraisal time process:**

- 1=[ ☐ ] The appraisal process takes place before the creation
- 2=[ ☐ ] The appraisal process of paper based records takes place during the end of life
- 3=[ ☐ ] The company use Macro appraisal strategy
- 4=[ ☐ ] None of the above

**SECTION 5: NON-CURRENT RECORDS**

**5.1 Which of the following describe the approach of your company to its inactive records**

Tick all that apply

- 1=[ ☐ ] No program for inactive records
- 2=[ ☐ ] No separate handling for inactive records
- 3=[ ☐ ] Record responsible person coordinates and handles inactive paper and electronic records in the office
- 4=[ ☐ ] Identify all archival records in the records inventory
- 5=[ ☐ ] Separate archival records from active and semi active records
- 6=[ ☐ ] Store archival records in a separate secure area
- 7=[ ☐ ] Develop series description of archival records
- 8=[ ☐ ] Others, please specify

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**SECTION 6: MANAGEMENT ISSUES**

**6.1 Do you have a records management committee?** 1=Yes [ ☐ ] 2=No [ ☐ ]

**6.2 How often does the committee meet?**

- 1=[ ☐ ] No records committee
- 2=[ ☐ ] There is a committee and it meets \_\_\_\_\_ a year

**6.3 In what way(s) is the record committee involved in the records management in your company:**

- 1=[ ☐ ] No records management committee  
2=[ ☐ ] The committee is not active at all  
3=[ ☐ ] The committee develops and helps to implement company's records management policies  
4=[ ☐ ] The committee reviews and approves the disposition of records  
5=[ ☐ ] The committee establishes records management plan for the company  
6=[ ☐ ] The committee reviews and supports budget request for records management department in the company  
7=[ ☐ ] The committee has regular meeting with records staff and company top management  
8=[ ☐ ] The committee meets regularly to discuss company's records management issues

**6.4 Which among the following records related documents exist in your company:**

Tick all that apply:

- 1=[ ☐ ] Corporate records management policy  
2=[ ☐ ] Company records management procedures  
3=[ ☐ ] Company records management manuals  
4=[ ☐ ] Others, please specify

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**6.5 Which of the following describes the company's records management policy?**

- 1=[ ☐ ] Does not have records management policy  
2=[ ☐ ] Policy provides statements of company records management objectives  
3=[ ☐ ] Policy defines responsibilities for the corporate records management  
4=[ ☐ ] Policy provides a company records management plan  
5=[ ☐ ] Policy provides guidelines for archival records  
6=[ ☐ ] Policy provides guidelines for managing electronic records  
7=[ ☐ ] Policy provides guidelines for appraisal, schedules and disposition of records  
8=[ ☐ ] Others, please specify

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**6.6 Is there an item for records management in the income and expenditure of the company?**

1=Yes [ ☐ ]      2=No [ ☐ ]

**6.7 Does your company have a budget allocation specifically for records management?**

1=Yes [ ☐ ]      2=No [ ☐ ]

**6.8 When comparing current year and previous year the records management budget:**

- 1=[ ☐ ] Increase  
2=[ ☐ ] Decreased  
3=[ ☐ ] Stayed the same

**6.8 Which of the following do you foresee as future priorities for the records management in your company**

- 1=[ ] Establishing records committees
- 2=[ ] Addressing problems posed by computer generated records
- 3=[ ] Obtaining adequate training for records staff in the company
- 4=[ ] Intervening in problems posed by active records and files
- 5=[ ] Managing electronic records
- 6=[ ] Managing inactive records
- 7=[ ] Conducting a records inventory
- 8=[ ] Creating record retention schedule
- 9=[ ] File management
- 10=[ ] Needs assessment
- 11=[ ] Managing archival records
- 12=[ ] Others, please specify

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**6.9 What is your reaction to the following statement?**

The top management of the company are very supportive of the company records management programme and provide useful advice for records management improvements

Strongly agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly disagree 5	Does not apply 6
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Comment on the top management support:

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**Thank you for your time**

## **Appendix 7: Observation schedule**

**Developing a Model for a Corporate Record  
Management System with Special Reference to  
Sustainability Reporting in Iringa Region, Tanzania**

**Observation Schedule**

Name of the company \_\_\_\_\_

Date of observation \_\_\_\_\_

No	Items to be observed	Details
1.	Computer installation (Networked, stand alone, internet connection etc)	
2.	Finding aids (Types)	
3.	Storage facilities (Shelves, cabinets, floppy diskette, CD, CD ROMs, CD R, WORM)	
4.	Filing systems (Type)	
5.	Record centre (onsite or offsite)	
6.	Check records policy	
7.	Check disaster control plan	
8.	Check vital records program	
9.	Check the storage of duplicates of vita records	
10.	Check availability of emergence telephone numbers	
11.	Check safety equipment (extinguishers, sprinkler system, fire detectors)	
12.	Check the retention schedules	
13.	Check records inventory (estimate per cubic meters)	
14.	Check metadata files	
15.	Check the handling of inactive records	
16.	Check if they have temporary storage for semi active records	
17.	Check environmental reports	
18.	Check detailed itemized financial reports	
19.	Check social responsibility reports	
20.	Check sustainability reports	

## **Appendix 8: Addresses of companies involved in the study**



**IR. CO. LTD.**

*Dealers in: Water Bottling*

**M. G. Fliakos**

*Managing Director*

BOX 946

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GA

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TANZANIA



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**FUAD JAFFER ABRI**  
*Director*

**ASAS TRANSPORTERS CO. LTD.**

**ASAS DAIRIES LTD.**

**SALAAM BRANCH**

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**Silius B. Msolansimbi**

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**M. Jayaram Shetty**  
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Unilever

**David J. Magese**

*Human Resources & Corporate Affairs Manager*

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**Mufindi Tea Company**

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**Sao Hill Saw Mill Company**

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Contact person: Kisondeella

**Tanganyika Wattle Company and Kibena Tea Company**

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Tanzania

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