

**Need Assessment for the  
Deployment of an Institutional  
Repository at Mzumbe University**

**RESEARCH REPORT**

**By**

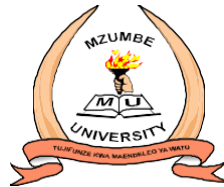
**Matilda Kuzilwa,**

**George Bea,**

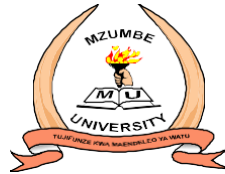
**Goodluck Mosha**

**and**

**Ghasia Mohamed**



**MZUMBE UNIVERSITY**



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**Matilda Kuzilwa, George Bea, Goodluck Mosha and  
Ghasia Mohamed**

**30<sup>th</sup> December, 2011**

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# Need Assessment for the Deployment of an Institutional Repository at Mzumbe University

By

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## Abstract

*This study focused on understanding the need for establishing an Institutional Repository (IR) at Mzumbe University from the readers' perspective. The study used a sample of 222 respondents comprising staff and students drawn from Mzumbe University's Main Campus, Dar es salaam Campus College (DCC) and Mbeya Campus College (MCC). The sample was selected using the purposive sampling procedure for the explicit purpose of obtaining information from the two main groups of respondents, that is, males and females. Both qualitative and quantitative data were collected using questionnaires, interviews and focus group discussions. Data were analysed using the content analysis procedure and Statistical Package for Social Sciences (SPSS) and results were presented in tables and figures showing descriptive statistics, mainly frequencies and percentages.*

*The findings indicated that the majority of Mzumbe University readers (96%) support the establishment of an IR. This is due to some of the perceived benefits to be gained, such as increased and wider access to information needed for teaching and learning, as well as increased visibility of Mzumbe University research output that would be useful for the prestige of authors and the University.*

**Keywords:** Institutional Repository, Mzumbe University, electronic archive, Open Access, electronic publishing, unpublished data, Knowledge Management, Focus Group Discussion,

### **Acknowledgement**

This study is the result of the efforts of different people, who cooperated immensely in providing the needed information that led to its success. We therefore thank all of them, including the Deans and Directors, for filling in the questionnaires and distributing the same to the staff in their respective faculties, directorates and institutes.

Many thanks should also be given to the librarians at Mbeya and Dar es Salaam Campus Colleges for assisting in distributing and collecting questionnaires from respondents in the mentioned campuses. The researchers are also indebted to the management of Mzumbe University Students Organisation (MUSO) for facilitating the exercise by providing lists of faculty and class representatives, who in turn greatly assisted in distributing the questionnaires to their fellow students. Furthermore, the researchers are very grateful to the whole Mzumbe University community for agreeing to be involved in interviews and focus group discussions during the hectic time of semester two exam preparation when this study was conducted.

Last but not least, the researchers thank the Directorate of Research and Postgraduate Studies (DRPS) for funding the study, the benefits of which need to be realized by the whole Mzumbe University community after its implementation. The researchers therefore propose that the DRPS should continue to support their proposals that have embedded value for the University so that the Mzumbe University community can benefit from the knowledge to be generated.

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## List of Abbreviations

DCC	Dar es Salaam Campus College
DRPS	Directorate of Research, Publications and Postgraduate Studies
DICT	Directorate of Information and Communication Technology
DLTS	Directorate of Library and Technical Services
HLI	Higher Learning Institutions
IR	Institutional Repository
KM	Knowledge Management
MCC	Mbeya Campus College
MU	Mzumbe University
MUHAS	Muhimbili University of Health and Allied Sciences

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## **Chapter One: Introduction and Background to the Study**

### **1.0 Introduction**

This chapter provides the introduction and background to the study, the need for the IR, the problem statement, objectives of the study general objective and specific objectives, research questions, contribution, scope and limitations of the study.

### **1.1 Background**

The Institutional Repository (IR) is defined by Foster and Gibbons (2004) as an electronic archive that captures preserves and provides access to digital products of a community. IR enables the sharing of information and knowledge among scholars and researchers within and outside the university (Poornima and Goudar, 2006). The IR is also defined by Crow (2002a) as a “digital collection that captures and preserves the intellectual output of a single university or multiple institutions”. Poynder (2005) points out that IR “is a repository for a university’s research output that aims to increase access to research output and so enhancing its impact”. In addition to several definitions given above, Lynch (2003) provides a working definition of IR as “a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members”. The IR therefore, consists of a formally organized and managed collection of digital content generated by faculty, staff and students at an institution (McCord, 2003: 1).

The contents of repositories can be made available to colleagues and students at other institutions as well as to the general public. These repositories use different technologies that support the storage and distribution of digital content, including the following:

- Collection-based digital repositories managed by library professionals, either stand-alone or aggregated/linked;
- Course management systems and associated files;
- Collections of research data and reports managed by academic departments;
- Student academic portfolio systems;
- Institutional file storage systems;
- Digital asset management workflow systems, or web content management systems used by institutions or departments to store web content (McCord, 2003: 1).

In terms of automation, The University Library has automated only the bibliographical, records of its collection, meaning that users do not have access to the full-text articles electronically from the Mikromarc database. This has raised several questions, particularly from new students, who regularly question librarians as to why they should not come out with strategies to enable users to access full-text electronic resources. This is a problem not only for readers but also for the entire University, which lags behind other universities in Africa in terms of online publishing, and information dissemination.

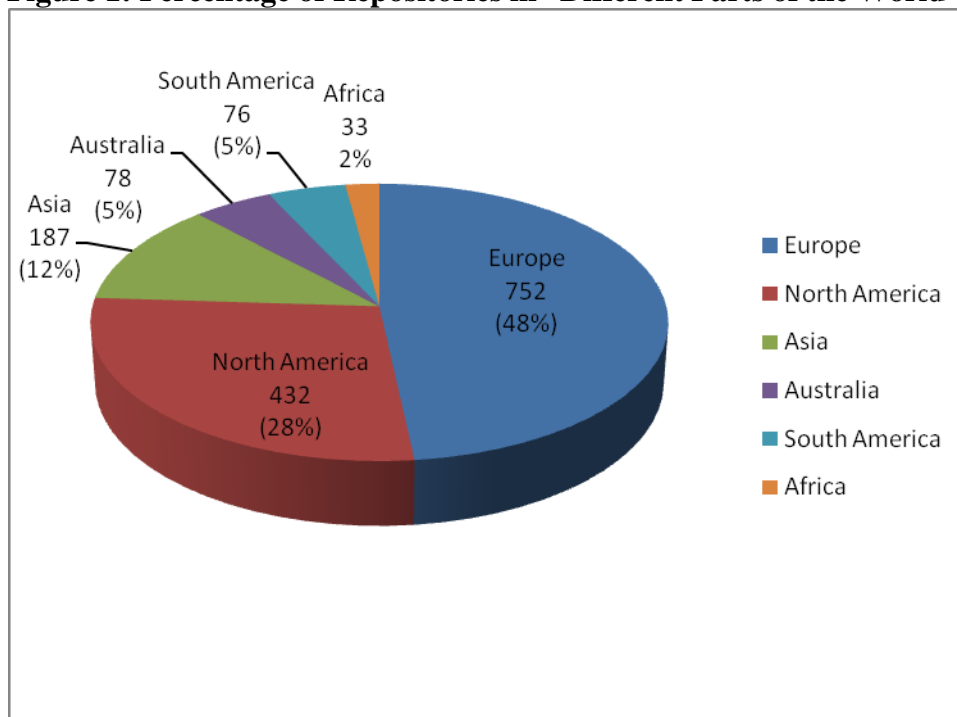
Therefore, an IR will not only improve access but also add some flexibility in accessing resources outside the library or university premises. It shall also raise the image of Mzumbe University nationally, regionally and internationally in terms of publications and their access.

### **Importance of Institutional Repositories**

Institutional Repositories are important because they help to store university intellectual output such as books, research reports and journals in electronic format for ease of access by users.

Many institutions in different parts of the world have established IRs for the benefit of their readers as indicated in Figure One below:

**Figure 1: Percentage of Repositories in Different Parts of the World**



**Source: Adapted from Open DOAG (2009)**

The institutions in Figure One above have raised profiles of their publications because IR enables wider access to institutional resources at local and international levels. Africa has 2% of IRs which is the lowest compared to her counterparts. The majority of institutions with repositories in Africa are located in South Africa. Kenya has 4, Uganda has 1, and Tanzania has four IRs. One is in the University of Dar es Salaam, the Open University of Tanzania, Muhimbili University of Health and Allied Sciences and the Ifakara Health Institute.

It is against this background that this study was conducted to determine the need for IR at Mzumbe University (MU) to enhance wider access to teaching and learning resources without necessarily visiting the library.

## 1.2 Why Institutional Repository at MU

The need for institutional repositories in universities arose out of a growing crisis in scholarly communication, Rieh *et al.* (2007). Over the last twenty-five (25) years, subscription prices to scholarly publications have increased at a rate so significant that many libraries Mzumbe being inclusive have been forced to reduce their subscription and book holdings. At the same time, the budget allocated for libraries has remained unstable and stagnant.

The Accreditation Committee for East African Universities which visited MU in 2007, among other things, hinted at the need to establish an IR when evaluating MU for full accreditation. This served as an impetus for the MU library management to conduct the need assessment.

The need for IR at Mzumbe University is also in line with Mzumbe University's Third Corporate Strategic Plan 2012/13 – 2016/17: A1.3 which reads “Strengthen digital environment for teaching and learning” with the following targets:

- Digital communication within the Mzumbe University community was fully adopted and operational by 2017.
- Teaching and learning-related documents for all courses of Mzumbe University will be available for virtual and online learning by 2013
- The University’s research expertise and profiles available online through the MU Research Online repository by June 2014,

Other driving forces for an IR at MU are: to provide open access to institutional research output by self-archiving it; to create global visibility for MUs’ scholarly research and the need to collect MU’s scholarly content in a single location. It is also noted that an IR will require less physical space than hard copies especially those of theses and dissertations.

### **1.3 Potential Benefits of IR to MU**

Institutional repositories (IRs) are increasingly deployed in academic institutions to manage a variety of digital content including educational, research, and archival materials. The benefits of IRs have been touted by many authors, and include increased knowledge sharing, Yeates (2003), control over the digital assets of the university (Crow 2002a, 2002b), and preservation, Lynch (2003). Gibbons (2004) cites major benefits such as stewardship, efficiencies, showcasing an institution and wider distribution as compelling reasons for establishing an IR. All of these benefits involve digital curation because they span the information life-cycle and involve achieving goals that are central to digital curation, such as “interoperability with the future” and “communication across time” (Rusbridge *et al.* 2005). At MU majority of published and non-published materials written by academic staff are not very easily accessible to the public as they are in print format only. The establishment of an IR is therefore expected to be of benefit as it will open up publicity of the scholarly publications and thereby contribute to institutional recognition. It is these benefits which catalyzed Mzumbe University to see a need to establish an IR.

### **1.4 Problem Statement**

The absence of an IR at the University is a constraint to readers because it necessitates users to visit the library to access teaching and learning resources which are mainly hard copies. This is a constraint for those who need flexibility in accessing learning resources electronically from anywhere at their convenience without having to visit the library.

The rationale for establishing IR is that it will increase the accessibility and visibility of scholarly works produced by faculty members for enhancement of MU’s reputation through citation of their works. Currently, the intellectual output produced by scholars and researchers in academic institutions is monopolized by journal publishers who sometimes charge high prices for journal articles and subscriptions to e-journal databases.

Another reason for establishing an IR at the University is to cope with the increasing number of students and academic staff, who are currently estimated to be more than 4,800. This figure is projected to increase to 6000 readers by 2012 (Tlegray, 2008: 1). Therefore, this is an optimum

time to establish an IR at MU. This will not only improve academic performance but also provide an opportunity for Mzumbe to store scholarly outputs in an electronic archive, which will be accessible within and outside the University. In addition, institutions of higher learning worldwide also recognize the need to develop repositories for long-term archival purposes and to administer the property rights associated with the stored assets. This study therefore examined the need for establishing an IR from the perspective of readers from MU's main campus, Dar es Salaam and Mbeya Campus Colleges.

## **1.5 Objectives of the study**

### **1.5.1 General Objective**

The general objective of this study was to collect opinions from MU academic and research community including students on the need for an IR at MU.

### **1.5.2 Specific Objectives**

The specific objectives were:

- To find out the views of the MU academic and research community including students on the need for IR.
- To determine the types of resources that will be stored in the IR.
- To examine how IR can easily be accessed by readers.
- To examine how IR can be successfully managed for the benefit of internal and external readers.

### **1.5.1 Research Questions**

- What is the attitude of MU readers towards IR?
- What types of resources can be stored in the IR?
- How can IR be easily accessed by readers?
- How can IR be successfully managed for the benefit of internal and external readers?

## **1.6 Contribution of the Study**

Earlier studies focused on the establishment of IRs from the perspective of librarians, but this study focuses on the perspective of readers, i.e. students and academic staff. Therefore, the output of this study in the form of a research report and an article may be used by those interested in the field of IR as a basis for future studies.

## **1.7 Scope the Study**

This study focused on examining the need for an IR at MU from the perspective of the academic and research community including students.

## **1.8 Limitation of the Study**

A research work of this nature cannot come to an end without limitations. This study was conducted when the majority of respondents, particularly students and lecturers, were busy preparing for the end of Semester two exams, and therefore not all the questionnaires were returned by respondents. Another limitation was time and financial constraints. However, considerable care and thought were exercised in making the study as scientific, systematic and as objective as possible.

## Chapter Two Literature Review

### 2.0 Introduction

This chapter reviewed relevant literature on the need for an Institutional Repository at Mzumbe University. The resources reviewed covered the period from 2003 to 2011, both past and current records. The review of the literature was organised around these themes: Institutional Repositories and their benefits, Conceptual framework, and the knowledge management and conceptual framework

### 2.1 Benefits of IR as Aired Out by Different Scholars.

Different scholars from different parts of the world have aired various benefits of IR to different groups in society.

**Gibbons (2004)** presented compelling reasons why institutions should establish IRs. These include the need for infrastructure to preserve digital content, to lower the barriers to document distribution, and to create a centralized digital showcase where research, teaching and scholarship can be displayed and accessed. Similarly, Yeates (2003) argues that IRs tend to extend the range of knowledge sharing, leverage existing investments in information systems and enable flexible ways of scholarly communication. Regarding the importance of IRs, several other authors (Crow 2002a) have also argued that:

*“IRs form the infrastructure for a new scholarly publishing paradigm that wrests control away from publishers and puts it back into the hands of the academicians, they increase institutions’ visibility and prestige, maximize access to the results of publicly-funded research, and increase the number and diversity of scholarly materials that are collected and preserved by academic institutions”.*

Although previous studies have focused on the value and benefits of IRs, it is important to find out how staff perceives these benefits based on their experience of implementation and planning of Institutional Repositories (Rieh, 2007: 2).

**Sharif and Uhlir (2009)** also noted that IRs greatly facilitate scientific inquiry, diversity of analysis and new types of research and also prevent duplication and research inefficiency. Generally, they eliminate to a large extent the economic barriers to the transfer of information to researchers and students who cannot afford high access prices or the inefficiency and delays in inter-library loans.

Other benefits of IR, according to the above-mentioned authors, include the following:

- Storing learning materials/digitized collections;
- Enhancing electronic publishing;
- Managing collections of research documents;
- Preserving digital materials for the long term ;
- Institutional leadership role for the institution;
- Knowledge management;
- Encouraging open access to scholarly research.

**Yeates (2003)** also categorized the following primary advantages of IRs.

*For users:* expansion of the range of knowledge that can be shared, flexible ways to use existing scholarly communications, and opportunities to simplify and extend dissemination.

*On the part of institutions:* IR enables effective use of institutional resources, the leveraging of existing investment in information and content management systems and the highlighting of the quality of intellectual capital.

According to McCormick (2006), and Cohen and Schmidle (2007), building an IR would allow libraries to improve their service, build their collections, preserve digital content and support open access.

An IR is understood to be an information system that collects, preserves, disseminates and provides access to the intellectual and academic output of the university community (Gonzalez, 2007). Nowadays, IR is a key tool of the scientific and academic policy of the university. In addition, access to the full text of digital learning objects makes IR a fundamental support tool for teaching and research, whilst at the same time multiplying the institution's visibility in the international community.

Within this scenario, it is argued that university libraries must lead the implementation of IRs to enhance the university's educational competitiveness, because of their experience in information management in all forms and contact with knowledge' (Gonzalez, 2007: 4). The author goes on to argue that the mission of knowledge management, which involves libraries in the development of IRs, has the following objectives:

- Maximize the visibility, use and impact of the scientific and academic output in the international community;
- Create feedback on research;
- Provide storage for the electronic publications of the institution;
- Facilitate access to academic and scientific information;
- Facilitate economic stimulation and social development;
- Improve the teaching environment so that it is rich in information for students and lecturers to facilitate the creation of an information society in higher learning institutions.

**Gonzalez (2007: 5)** also listed the benefits of IRs for various groups as indicated below:

#### **Benefits for the institution**

- Provide academicians, students and administrative staff with auto-editing and auto-archiving tools and instruments for their electronic publications;
- Communicate and disseminate intellectual results to the scientific community.
- Attract and incorporate documents produced by researchers and academicians from different disciplines;
- Preserve scientific, academic and institutional information for the future;
- Create and develop scientific electronic communities;
- Selectively disseminate the uploaded information;
- Record usage statistics of documents.
- Provide a storage and mutual exchange platform for the information produced by the institution in all knowledge areas;
- Maximize the impact of research output on society;

### **Benefits for scientists and academicians**

- Facilitate access to scientific information;
- Support the initiatives of scientists and academicians in research activities;
- Improve the visibility of their academic output;
- Promote the creation of electronic publications;
- Increase the impact of the teaching and research work they carry out.

### **Benefits for students**

- Facilitate sharing of information for learning and research;
- Produce new publications at a lower cost;
- Improve their skills in searching for electronic information;
- Achieve better academic results and make them more competitive.

### **Benefits for society**

- By improving the dissemination of research results, knowledge can be used to improve agriculture and manufacturing.
- By enabling effective use of information an IR can increase the public's knowledge about their environment.

Further results can also be expected from an IR that would justify its establishment, as listed below:

- By providing the university community with space to store the information produced, it contributes to an improvement in personal and collective learning;
- By preserving the scientific, academic and corporative production of the institution, its historic memory is guaranteed;
- By integrating access to the content of the repository with the virtual learning platform, teaching is facilitated;
- By maximizing the visibility of scientific, academic and institutional production, the impact of the university is improved;
- By displaying its production, the performance of the institution can be evaluated and enhanced;
- By providing teachers with an auto-archiving tool, communication with their colleagues and students is facilitated;
- By integrating research output from different disciplines feedback for research is improved (Gonzalez, 2007: 23).

A study by Swan (2005: 3) in the United Kingdom indicates that IRs are electronic archives, which may be at institutional, school or departmental level, and serve as a depot for research information, teaching resources and other institutional information. In the above study, the author listed some of the benefits of IR for the institution and researchers as indicated below:

### **Benefits for the Institution**

- Fulfills a university's mission that encourages the dissemination of scholarly work;
- Enables a university to compile a complete record of its intellectual output;
- Forms a permanent record of all digital output of an institution;
- Enables standardized online CVs for all researchers;
- It is a marketing tool for universities.

## Benefits for Researchers

- Secure storage for completed work and work in progress;
- A location for supporting unpublished data;
- A location for all digital objects;
- One input, many outputs i.e. CVs and other publications.

Swan (2005) also stated that IRs can be designed, either according to the subject for each discipline or specific types of articles (e.g. theses/dissertations). Therefore, it is up to the institution to decide the methods to be used in arranging documents in its repository.

## 2: 2 Challenges of Establishing IR

Despite the mentioned benefits, Lynch (2003) gave a word of caution regarding the implementation of IRs as follows:

- IR should not be used for institutional administrative control of resources as happens in some faculties and departments;
- IR should not be overloaded with destructing and irrelevant policy baggage. These inappropriate/irrelevant policies according to the author may affect the interests of institutions' members as "imposing complex, cumbersome, gate keeping policies for admitting materials into the IR can be highly counter-productive" (Lynch, 2003: 8). The author emphasized that IR is not a challenge or an alternative to disciplinary repositories if they exist, but they complement them, just as they can complement existing avenues of scholarly publications;
- IR should not be implemented hastily without involving the relevant stakeholders or doing a need assessment and without real institutional commitment. The author added that "*it is vital for institutions to recognize IR as a serious and long-lasting commitment to the campus community, scholarly world and the public at large*" (Lynch, 2003: 9).

Other issues identified by Lynch (2003) that may affect the performance of IR, are institutional failure to fund it, management failure and technical problems.

Sharif and Uhlir (2009) also stated some of the challenges institutions may face when implementing the establishment of an IR. They include adoption rate by users, maintenance for sustainability, developing policies, managing intellectual property rights and cost management.

Regarding the drawbacks of IRs, Yeates (2003) made the following remarks:

- They affect the balance of institutional power as some departments proceed faster than others;
- They rely on unproven methods for long-term digital preservation;
- Initial costs may be high as contributors perceive that establishing it is a risky business.

In India, a study by Nazim and Davi (2005) noted that IRs are of benefit to Indian scientists and those of other developing nations where academic, scientific and non-profit institutions have limited resources and libraries have inadequate funds to subscribe to scientific literature. Tripathi (2009) also advocates that open access to information and knowledge through IRs has enhanced the quality and standard of distance education in India to a great extent. The study by Ghosh (2007) in India also revealed that electronic theses and dissertations in IRs had the following impacts on students:

- Allow students to better express ideas and the reader to better understand them;
- Provide a unique opportunity to learn more about electronic publishing;
- Promote collaboration between research programmes by making research work visible and accessible via network archives.

Laxminarsaiah and Rajgoli (2007) from India also emphasized that since traditional libraries are limited by storage space, repositories have the potential to store much more scholarly information and require very little space to store it. As such, the cost of maintaining an institutional digital library is much lower than that of a traditional library.

In South Africa a study by Deventer and Pienaar (2008: 5) indicated some benefits of establishing IR as follows:

- Every installation of IR software is unique and therefore it brings about further learning opportunities that could be applied for the benefit of other institutions and the community as a whole.
- Every installation allows for new experimentation and further skills development in related activities.
- New graduates are employed, thereby releasing new skills to the wider community.
- The library is now seen as a ‘publisher’ of information and knowledge and not only as a user and conduit of published information.
- Open source and open access accelerate learning.

Despite the above benefits, some of the issues that need to be considered before implementing the establishment of an IR include:

- Influencing the mindsets of researchers who may be hesitant to accept these new ideas;
- Improving the quality of academic publications to be stored in the IR (Deventer and Pienaar, 2008: 5).

To enable the smooth implementation of IR, the cooperation of people with different skills from the library, ICT and other faculties is needed, and so this needs to be taken into account during the implementation of IR at MU to ensure its success.

A study by Muneja (2009) at the University of Dar es Salaam indicated some challenges faced during the implementation of IR as follows:

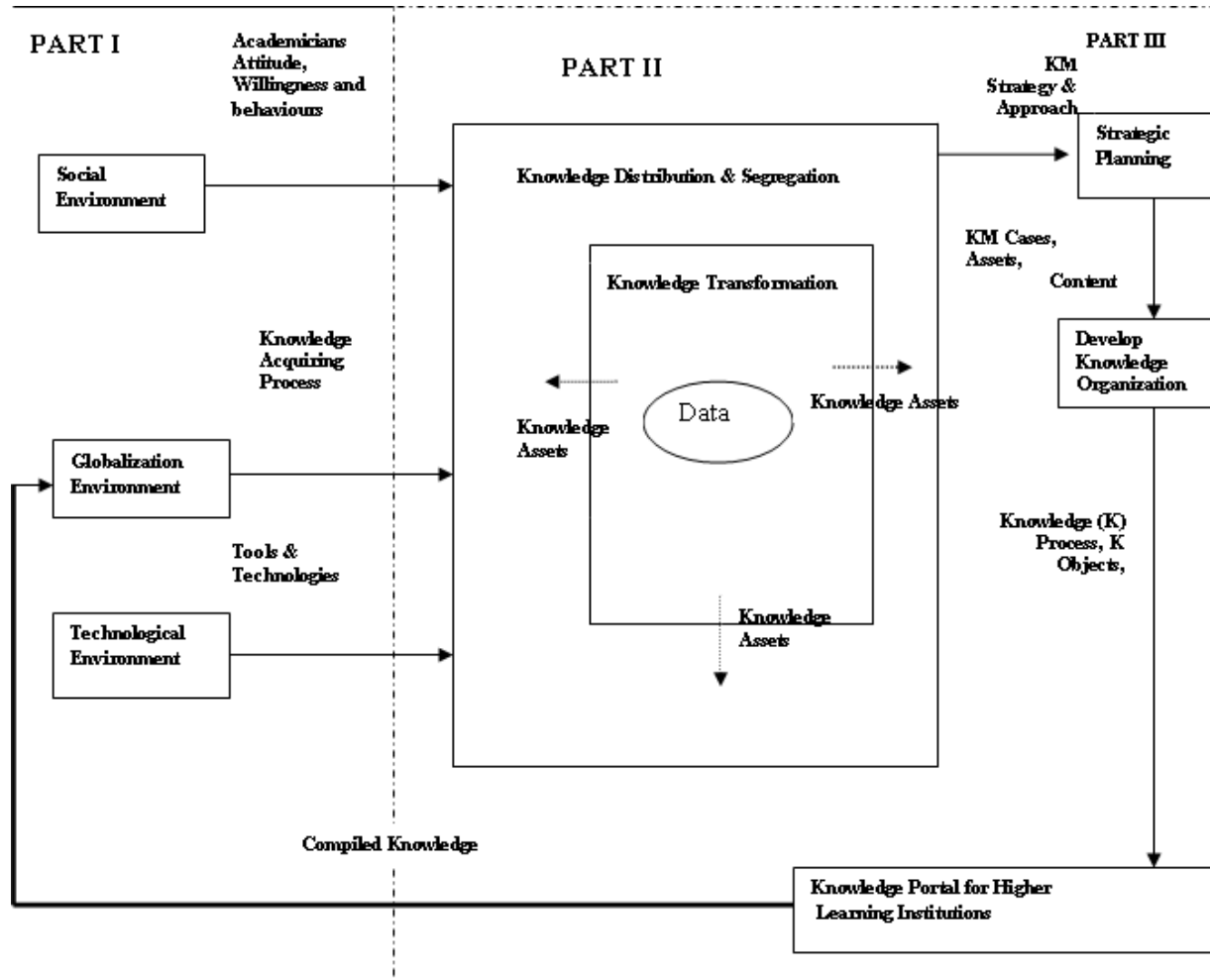
- Intellectual property issue was the main concern among the academic members;
- Issue of Open/free access v/s Semi-Open;
- Software choices;
- Human capacity to technically manage the repository;
- The willingness of top management to fund the repository;
- Sustainability.

Muneja (2009) also noted that, despite the said challenges, IRs are essential in any higher learning institution. As noted, the above literature indicates that some benefits and issues need to be considered during the implementation of IR. These insights are useful to enable researchers to tackle the issue of implementation of IR at MU.

### 2.3 Conceptual Framework

Since IR is a relatively new field of research, the framework for knowledge management will be used in understanding the concept of IR as shown in Figure 2 below:

**Figure 2: Knowledge Management Conceptual Framework**



Source: Ismail & Chua, (2005)

### 2.4 Overview of Knowledge Management

The rapid growth in the amount of data and technologies has triggered the transformation of data into useful information, known as knowledge. Today, the academic community is more aware of the importance of knowledge and the ways to acquire, recognize, capture, retrieve, use, manage and share knowledge in the form of knowledge artefacts, as shown in Figure 2. The term ‘Knowledge Management’ (KM) refers to the process whereby organizations formulate ways to archive knowledge assets within the organization that are derived from its employees in various faculties and departments, and in some cases, even from other organizations that share similar areas of interest or specialization Joseph(2001). KM is concerned with making the right knowledge available to the right processor, such as a human or computer, at the right time in the right presentation for the right cost (Holsapple and Joshi, 1999). KM consists of explicit knowledge and tacit knowledge (Tiwana, 2000). These concepts i.e., tacit and explicit

knowledge, knowledge artefacts and community of practice could be used to explain and understand the concept of KM and its successful implementation.

*Tacit Knowledge*: this refers to the knowledge that resides in the human brain and is difficult to capture. Examples include academicians' experiences, know-how, beliefs, values, perceptions, judgments, teaching and research skills (Nonaka, 1991). Since this knowledge is considered personal to each individual, it is difficult to transfer, share or communicate with other parties. As a result, the academic community may face difficulties in transferring this type of knowledge into formal documents. However, their ideas and experiences may be captured in audio and graphic formats for future use.

*Explicit knowledge* is knowledge that exists in the form of documents, reports, models, mathematical equations, books, journals and other texts. This knowledge can be codified and transferred easily and can be communicated, shared and expressed easily in formal language.

*Knowledge Artifact*: Krupansky (2006) defined a knowledge artefact as “an artefact which represents an encoding of knowledge”. In the IR context, knowledge artefacts are outputs of research work done by researchers in Higher Learning Institutions (HLIs). This research output is explicit knowledge and can be transferred from one person or software agent to another (Holsapple, 2003). The process of producing knowledge artefacts in IR involves the combination of explicit knowledge in the form of documented data gathered through a survey or scientific experiment and tacit knowledge stored inside a researcher's mind in the form of beliefs and research experience. For example, an experienced researcher would know that the best way to analyse a particular type of quantitative data is by using a suitable statistical analysis technique with the right analytical procedures. The terms knowledge assets and knowledge artefacts will be used interchangeably in this study.

*Community of Practice (CoP)*: Brown and Duguid (2001) pointed out that knowledge “flows best through networks of people who may not be in the same part of the organization, but have the same work interests”. In IR, CoP includes academicians and scholars at various levels in HLIs who engage in the business of manufacturing knowledge artefacts, such as research articles in the form of journals, conference proceedings, theses, technical reports and presentations.

Given this, IR has become a valuable knowledge store which can be utilized by knowledge workers such as researchers to produce new knowledge artefacts. Moreover, IR software that stores knowledge should therefore be equipped with functional features that would make its utilization worthwhile. A survey and interview by Ismail *et al.*, (2007) concluded that the needs and wants of students are motivational factors that encourage them to use the IR as part of the research process. They further state that other factors that motivate students to search IRs are the freedom to use it, the user-friendly interface and the full display of the content.

To assist in further understanding how the KM theory could be used to implement a successful IR, we utilized the above framework proposed by Ismail and Chua (2005) as a guideline as shown in Figure 2 above.

The KM framework serves as a foundation and therefore enables KM to be deployed in an environment specific to HLIs. Some elements in the framework are explained below.

The KM framework according to Ismail *et al*, (2007) consists of three parts, i.e. the left, middle and right parts. The left part is composed of the external environment which consists of the social environment, the globalization environment and the technological environment that provides needed input for knowledge distribution and segregation. For instance, academicians' attitudes, willingness, and behaviour are the types of input from the social environment that are needed for moulding their culture, trust in and attitude to knowledge distribution and segregation. In the context of IR, this environment is also useful as it helps researchers and students to collect their data for the creation of knowledge assets, such as theses, research reports and articles for depositing in the IR. Likewise, through knowledge management, HLIs may apply different strategies to enforce or motivate their staff, such as using rules and regulations to share and distribute knowledge. In the context of IR, these institutions may also do the same by requiring their staff to deposit their knowledge assets in the IR for others to use, thereby widening access to knowledge.

The middle part consists of data, knowledge assets, knowledge transformation and knowledge distribution and segregation. First, before data can be converted into knowledge, it must be converted into information. It must also undergo the 5C's filter, consisting of condensation, calculation, contextualization, correction and categorization (Davenport and Prusak, 1998; Tiwana, 2002). This information is later transformed into knowledge for use by knowledge workers. In the context of IR, knowledge workers are the academic community and students who do research work to advance their careers and earn merits for academic achievement. They make extensive usage of knowledge assets in the form of scholarly content in their research work. The research output in the form of knowledge artefacts is then segregated and distributed to other researchers around the globe. In the IR milieu, the segregation and distribution of knowledge means publishing researchers' work on the international platform for other scholars to appreciate, thereby gaining recognition for the institutions they work for. Such respect is useful as it determines the prestige of the institution where the research output acts as an indicator of performance. This knowledge possessed in particular by HLIs also represents the strategic resource that creates competitive advantage (King and Marks, 2006). With a repository well in place, an HLI would be a "World Class University" provided it follows the right KM strategy and approaches.

The third part consists of strategic planning, which determines the vision, scope and objective of the KM initiative to achieve desired goals. Thousands of IRs have been implemented after the realization of the value of research assets possibly opening another door for the discovery of new knowledge. Subsequently, the generated results that consist of KM cases, knowledge content and knowledge assets are used as input to the "Develop a Knowledge Organization" strategy for the development of a KM system structure. In the context of IR, the KM assets are in the form of scholarly content such as theses and dissertations, research reports, papers from conference proceedings, presentations and slides, e-books, journals and interview transcripts.

Since MU plans to establish an IR, it will adopt (Foster and Gibbons, 2005) ideas to organize knowledge to capture, preserve and provide access to the digital output of its community. The knowledge artefacts resulting from the formation of the knowledge organization will be used as input to the knowledge portal where it could be aligned with the existing infrastructure of the IR system itself. Hence, the above KM framework will be used to analyse the IR data collected from respondents.

## **Chapter Three: Methodology**

### **3.0 Introduction**

This chapter provides a comprehensive overview of the methodology employed in the current study. It encompasses a detailed discussion on the study area, research design, study population, sample selection, and the sampling procedure adopted. Furthermore, it delves into the methods employed for data collection, outlines strategies for ensuring data quality control, and elaborates on the planned approach for data analysis.

The methodology section serves as the foundation for the entire research endeavour, outlining the systematic processes and techniques utilized to gather and analyze data. The study area is meticulously defined to provide context and clarity, shedding light on the geographical and conceptual boundaries within which the research is conducted. The chosen research design is elucidated, justifying the appropriateness of the selected approach in addressing the research questions or objectives.

Additionally, the study population, representing the target group under investigation, is identified, and insights into the rationale behind the sample selection process are presented. A detailed account of the sampling procedure elucidates the methodological steps taken to ensure the representation and generalizability of findings.

Furthermore, the section expounds on the diverse methods employed for data collection, be it through surveys, interviews, observations, or any combination of these techniques. Special attention is given to data quality control mechanisms, including the validation of instruments, training of data collectors, and the implementation of consistency checks to enhance the reliability and validity of the gathered data.

Lastly, the chapter outlines the planned approach for data analysis, providing a roadmap for how the collected data will be processed, interpreted, and synthesized to derive meaningful insights. This comprehensive discussion on methodology aims to instil confidence in the research process, ensuring transparency and rigour in the pursuit of valid and reliable research outcomes.

### **3.1 Methodology**

The study used both qualitative and quantitative approaches to collect data. A survey design was chosen for this study, which is quantitative, and questionnaires were used to collect data. This was supplemented by qualitative techniques of data collection, i.e. interviews and focus group discussions for obtaining additional explanations from respondents in the form of follow-up questions to expand the survey findings (Lobe, 2009: 1). The rationale for using this methodology was to bring together the different and complementary strengths of both approaches.

### **3.2 Study Area**

The study was conducted at the MU Main Campus in the Morogoro region, the Mbeya Campus in the Mbeya region and Dar es Salaam Campus College in the Dar es Salaam region. These were selected because they are part of Mzumbe University and the IR will be used by the three campuses.

### 3.3 Research Design

This study used a qualitative survey design which is suitable for studying a large population scattered in different institutions or campuses. Therefore, the researchers surveyed respondents who were scattered in the three MU campuses as stated in the previous section. This method was used because it is effective in obtaining culturally specific information about the values, opinions, behaviours, and social contexts of particular populations.

### 3.4 Study Population

The study population comprised the MU academic staff and students from the three MU campuses and included both male and female respondents. These respondents were drawn from five faculties, three directorates and three institutes. The names of the five faculties are: the Faculty of Commerce, Faculty of Science and Technology, Faculty of Social Sciences, Faculty of Public Administration and Management and Faculty of Law, the Directorates are: the Directorate of Information and Communications Technology, the Directorate of Research, Publications and Postgraduate Studies, the Directorate of Library and Technical Services. Including the Institute of Development Studies, the Institute of Public Administration and the Institute of Continuing Education. This breakdown of respondents into faculties, directorates and institutes was not done for the Dar es Salaam Business School or the Mbeya campus because their operations are currently not based on faculties, directorates and institutes.

### 3.5 Sample Size and Sampling Procedure

Two hundred and twenty-two (222) respondents participated in this study. These were selected using purposive sampling. These respondents were included in this study because they are beneficiaries of the IR and therefore their views and perceptions on IR were important in determining if MU needs an IR.

#### 3.5.1 Sample Size

A sample as defined by Feeny and Ives (2001:29) is a list or other record of a population from which all sampling units are drawn. The sample size was comprised of 222 Mzumbe University community members drawn from the population as shown in Table 1 below.

**Table 1: Sample Size of the Population**

Sampling frame	Sample	Male	Female
MU Main Campus	134	85	49
Mbeya Campus	47	30	17
Dar es Salaam Campus	41	29	12
Total	222	144	78

As can be noted from Table One above, the total number of academic staff respondents from the three campuses was 62, while students numbered 160, with 78 females and 144 males.

### 3.6 Data Collection Methods

Data were collected both from primary and secondary sources. Secondary data sources were collected through library research and both print and electronic formats. Research reports were reviewed and major parts were summarised. Primary data were collected through a survey using a questionnaire, with both open and closed-ended questions which were administered to

respondents, supplemented by interviews and focus group discussions. The use of a combination of methods, i.e. triangulation, according to Waysman and Sawaya, (1998), enhances the validity and reliability of data collected because each method has its strengths and weaknesses.

Prior to the main survey, instruments were pre-tested on a small sample to determine if the questionnaires would yield useful answers. Findings from the pre-tested became a basis for improving the instruments. Questions which did not yield useful questions were revised or discarded.

### **3.6.1 Questionnaire**

In this study, the questionnaire was pre-tested on selected students and staff at MU Main Campus before being used as a major data collection technique. Questionnaires were used as the major data collection technique, involving respondents who were all members of different MU Campuses and the selected individual members were served with questionnaires.

Questionnaires were structured in two types. Type one contained open-ended questions which allowed the respondents to express their opinions on the study, while the second type had closed questions with possible answers to choose, from. This provided both qualitative and quantitative information on the need for IR at MU.

Questionnaires were selected as the data collection instruments for several reasons. Anonymity was assured, which was critical in a situation where researchers were also the assessors of the respondents. This was the main reason why interviews were administered to a few respondents due to the possibility of undue influence and bias (Sarantakos, 1998). The questionnaire allowed quick and efficient data collection providing a stable, consistent and uniform measure without variation.

### **3.6.2 Interviews**

The interviews were conducted to provide the participant with an opportunity to give more spontaneous, in-depth accounts of their feelings on the establishment of IR at Mzumbe University. This method in a big way was used to reduce the shortcomings of the questionnaire. This method was also used to get in-depth responses.

During interviews, rapport was created by starting with general questions to make respondents feel relaxed in answering questions, which enabled the researchers to get useful information from them. This is in line with the argument that “if the researcher and the subjects have established good rapport, the subjects will be cooperative and will have enough confidence in the researcher to pass on information about themselves, ranging from the details of daily life to sensitive matters” (Sharrif, 1991; Dean and Eichhorn,1969; Wax, 1971, cited in Ryen, 2002: 337).

### **3.6.3 Focus Group Discussion**

Focus group discussions were also conducted with four groups of students, who were found in discussion groups around the University premises. Focus Group discussions were conducted in an impromptu way so as not to disturb students who were busy preparing for their end of Semester examinations. The groups of students ranged from 4 to 6. The discussions were moderated by researchers who were also taking notes. Discussions were not taped due to limited time. Focus group discussions were used because of the following advantages:

- They enable the gathering of data much more quickly from a large number of people without wasting more time.

- They are convenient for a group of people who have been found together.
- They allow interaction directly with the respondents. This provides opportunities for the clarification of responses, for follow-up questions and probing purposes.
- They provide an opportunity to obtain large and rich amounts of data in the respondents' own words. This according to Krueger & Casey (2000) not only yields rich, qualitative information but also discloses what should be done, what will work and what will not, and why. This helped to identify respondents' views and attitudes about the establishment of IR.
- They allow respondents to react to and build upon the responses of other group members. This synergistic effect of the group setting resulted in the production of useful data that were not obtained through individual interviews.
- The results of the focus group were easy to understand, and therefore the researchers clearly understood the verbal responses of most respondents in the discussions.

The interviews and focus group discussions ranged from 20 to 40 minutes because the concept of IR was new to most of them and therefore they needed time to understand what IR is and its benefits to MU before they could answer the questions.

### **3.7 Data Analysis**

The collected data underwent a systematic and rigorous process of organization, coding, tallying, summarization, and interpretation, aligning with the conceptual underpinnings of the theoretical framework, study objectives, and research questions outlined in this research. This meticulous process served to extract meaningful insights and patterns from the gathered information.

Upon completion of the data analysis, the findings were meticulously presented in a clear and accessible manner. Tables and figures, employing descriptive statistics such as frequencies and percentages, were employed to enhance the visual representation of quantitative data. The Statistical Package for Social Sciences (SPSS) and Microsoft Excel Spreadsheet were instrumental in the comprehensive analysis of quantitative data, ensuring accuracy and reliability in the interpretation of numerical findings.

In parallel, qualitative data obtained through interviews and focus group discussions underwent a nuanced content analysis procedure. This method facilitated the extraction of themes, patterns, and underlying meanings from the qualitative narratives. The outcomes of this analysis were thoughtfully presented in the form of textual representations, including pertinent quotations from the participants. This approach allowed for a rich and nuanced portrayal of the qualitative insights, providing depth and context to complement the quantitative findings.

By employing this dual approach of quantitative and qualitative analysis, the study aimed to offer a comprehensive understanding of the phenomena under investigation. The synthesis of both types of data not only enriched the overall interpretation of results but also contributed to the robustness and credibility of the study's conclusions. This meticulous and transparent analytical process enhances the reliability of the study's outcomes and reinforces the validity of the research findings.

## Chapter Four Findings, Analysis and Discussions

### 4.0 Introduction

This chapter presents the key findings of this study according to the four research questions shown in Chapter One. It starts with asking respondents about their attitudes towards the establishment of IR, that is whether or not they see the importance of establishing an IR, the types of resources to be deposited in the IR, and whether or not they would like their academic work to be deposited in the IR. Other questions asked include awareness of copyright issues, who should own the copyright of materials deposited in the IR, ways of accessing resources deposited in the IR and which organs of the University can appropriately manage IR as depicted below.

**Table 2: Respondents by Sex (N=222)**

Total Sample N= 222	Category	Name of Campus							
		Main Campus		Dar Campus College		Mbeya Campus College		No	%
	Academic Staff	Students	Staff	Students	Staff	Students			
Male	27	58	12	17	12	18	144	64.9	
Female	5	44	2	10	4	13	78	35.1	
Total	32 (14.4%)	102 (45.9%)	14 (6.3%)	27 (12.2%)	16 (7.2%)	31 (13.96%)	222	100	

**Source: Field Data 2010**

Table 2 presents the distribution of respondents based on gender across different campuses at Mzumbe University, with a total sample size of 222. The respondents are categorized into academic staff and students, further stratified by sex and campus affiliation. The data is organized as follows: Main Campus: Male Academic Staff: 27 (14.4%), Female Academic Staff: 5 (2.3%), Male Students: 58 (26.1%), Female Students: 44 (19.8%), Dar Campus College: Male Academic Staff: 12 (6.3%), Female Academic Staff: 2 (0.9%), Male Students: 17 (7.7%), Female Students: 10 (4.5%). Mbeya Campus College: Male Academic Staff: 12 (6.3%), Female Academic Staff: 4 (1.8%), Male Students: 18 (8.1%), Female Students: 13 (5.9%)

The overall distribution of respondents across all campuses is as follows: Male Academic Staff: 51 (23%), Female Academic Staff: 11 (4.95%), Male Students: 93 (41.9%), Female Students: 67 (30.2%), Interpreting the data, it's evident that there is a notable presence of male academic staff and students across all campuses, with the Main Campus having the highest representation in both categories. Female representation is comparatively lower, with female students forming a smaller proportion than male students across all campuses. This information is crucial for understanding the demographics of the respondents and providing insights into potential gender-related variations in responses. Further analysis could delve into the implications of these demographics on the perceived needs and requirements for the deployment of an institutional repository at Mzumbe University.

## Educational Level of the Respondents

Table 3 outlines the educational level distribution of the respondents. The majority of the respondents are undergraduates (36.93%) and postgraduates (25.22%), representing a substantial portion of the university's student body. Meanwhile, degree holders (8.11%), masters (11.71%), and PhD holders (7.21%) constitute the academic staff.

**Table 3: Educational Level of Respondents (N= 222)**

Category of Respondents	Frequency	Percentages
Certificate(students)	20	9.01
Diploma (students)	4	1.8
Degree holders (staff)	18	8.11
Undergraduates (students)	82	36.93
Masters (staff)	26	11.71
Postgraduates (students)	56	25.22
PhD holders (staff)	16	7.21
Total	222	100

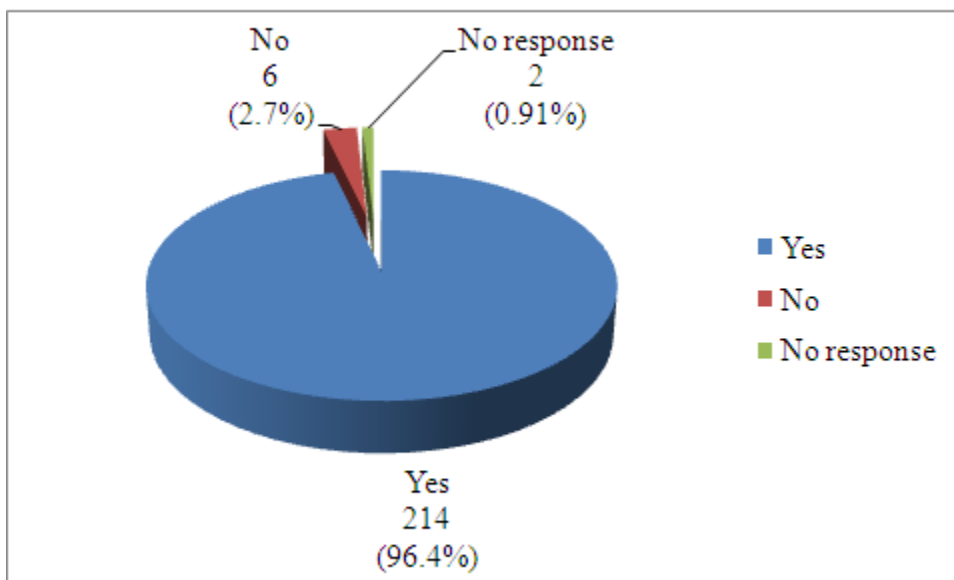
**Source: Field Data 2010.**

### 4.1 Attitudes of Mzumbe University Readers Towards IR

In assessing the sentiments of Mzumbe University readers regarding the Institutional Repository (IR), participants were queried about their perspectives on the necessity of implementing an IR at the university. The findings, as illustrated in Figure 3 below, reveal an overwhelming support, with approximately 96% of respondents expressing a favourable stance towards the establishment of an Institutional Repository at MU.

**Figure 3: Importance of Establishing IR at Mzumbe University (N=222)**

**In your Opinion do you see the Importance of Establishing IR at MU?**



**Source: Field Dat 2010**

As depicted in Figure 3 above, a significant majority of respondents, comprising 214 individuals (96.4%), expressed strong support for the establishment of an Institutional Repository (IR) at Mzumbe University (MU). The endorsement for this initiative is evident in the comments provided by respondents, such as one participant who emphasized the urgency of implementing the IR by stating, 'In fact, at Mzumbe, we are very late in establishing an IR. It should be established as soon as possible.'

However, a small fraction of respondents, specifically 6 individuals (2.7%), voiced reservations about the creation of an IR. Their apprehension stemmed from concerns that digitizing and storing their works in the IR might lead to free accessibility, potentially affecting the sale of their publications at the University Bookshop. It is crucial for this group to carefully weigh the potential benefits of an IR, considering that they would also have unrestricted access to their colleagues' research output housed in the repository.

The findings affirm the clear necessity of implementing an IR at MU, a conclusion further supported by insights obtained through in-depth interviews. For instance, a respondent with prior experience as a librarian in South Africa shared, 'An Institutional Repository was established several years back, and it has been instrumental in enriching the learning environment for students.' This sentiment aligns with the argument put forth by Lynch (2003), who contends:

*“The development of Institutional Repositories emerged as a new strategy that allows universities to apply serious, systematic leverage to accelerate changes taking place in scholarly communication”. Also, Markey et al (2007) remarked that “a considerable portion of the scholarly record is born digital, while some scholarly work is produced in digital formats that have no printed copy. The proliferation of digital scholarship raises serious and pressing issues about how to organize, access, and preserve it in perpetuity. The response of academic institutions has been to build and deploy institutional repositories (IRs) to manage the digital scholarship their learning communities produce”.*

The imperative for establishing an Institutional Repository (IR) is underscored by its role as a vital source of knowledge, a necessity that extends to every university, including Mzumbe. As of now, institutions like MUHAS and Ifakara Health Institute in Tanzania have pioneered the development of IRs, with ongoing initiatives at several other institutions. Currently, there are four active Institutional Repositories: Ifakara, MUHAS, OUT, and UDSM.

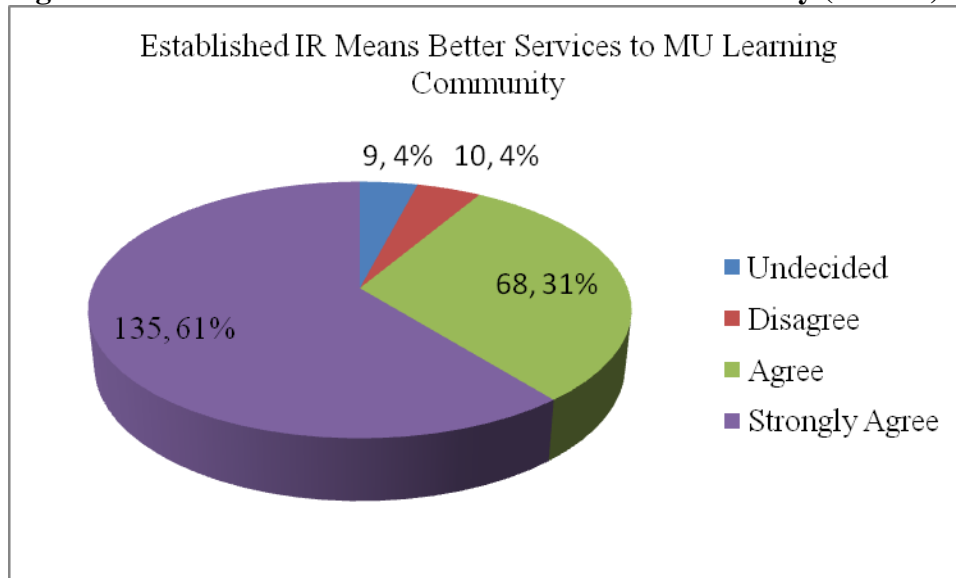
The recognition of the significance of IRs is palpable among academics in Tanzania, as articulated by one respondent who remarked:

*“...Institutional repositories are now clearly and broadly being recognized as essential infrastructure for scholarly work in the digital world. I cannot*

*understand any university which hesitates to have an IR at any cost. Also, to the author of deposited resources, the repository will be an opportunity to develop their research portfolio."*

This statement underscores the profound importance of establishing an IR, emphasizing its role as a facilitator for expedited access to locally produced scholarly works. To delve deeper into the relevance of establishing an IR at Mzumbe University (MU), respondents were queried about the potential impact on service enhancement at MU.

**Figure 4: IR Means Better Services for Mzumbe University (N= 222)**



**Source: Field Data 2010**

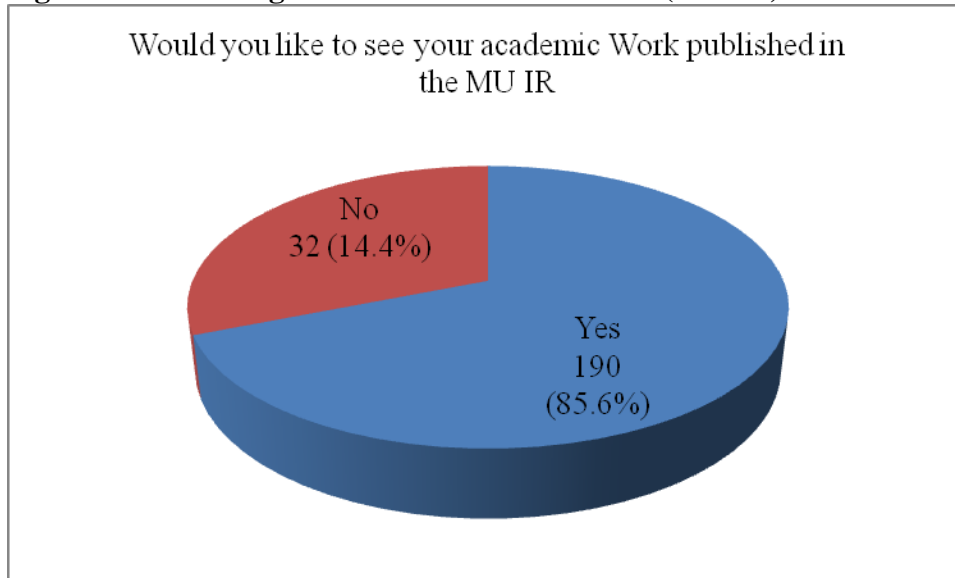
The results shown in Figure 4 indicate that 135 (61%) respondents strongly agreed, 68 (31%) agreed, 10 (4%) disagreed and 9(4%) were undecided. Based on these findings, it is clear there is acceptability of the establishment of an Institutional Repository at Mzumbe University. These findings should therefore be seen as a driving force for establishing an IR at Mzumbe University.

#### **4.2 Resources to be Uploaded and Stored in the IR**

A wide variety of digital resources can be stored and accessed in the IR including research reports, data and other non-textual files. To ascertain the type of resources to be stored in the MU Institutional Repository, respondents were asked to mention the type of resources which should be stored in the IR. The majority of them believed that the following items from the MU community should be stored in the IR: theses and dissertations, academic publications, which include academic staff research reports and articles published in peer-reviewed journals, grey literature, i.e. technical reports, study manuals, working and discussion papers, conference and workshop materials, audio-visual items and lecture notes. However, the type of resources for storage in the IR would be determined by the MU management and IR policy, but essentially they should be peer reviewed once the IR is approved for implementation.

The respondents were asked also to state if they would be willing to deposit their scholarly works in the Institutional Repository. The findings are shown in Figure 5 below.

**Figure 5: Publishing Academic Work in MU IR (N= 222)**



**Source: Field Data 2010**

Figure 5 shows that a majority of the respondents, 190 (85.6%) would be willing to deposit their scholarly works in the MU IR. However, 32 (14.4%) of the respondents indicated that they were unwilling to deposit their scholarly work in the MU IR because they would lose income if their publications were accessed free of charge and that their works would be plagiarised without acknowledging the authors.

Overall, the prevailing sentiment among a majority of respondents was optimistic regarding the prospect of contributing their scholarly works to the Mzumbe University Institutional Repository (MUIR). One respondent aptly expressed this positive stance, emphasizing the potential advantages of depositing scholarly works in an electronic institutional repository with an open-access framework. The respondent stated:

*" The academicians and researchers at Mzumbe should be made aware that, if they publish their work in an Electronic Institutional Repository (Open Access), the impact and visibility of their work will be greater than if their work was to remain in print format."*

This viewpoint underscores the understanding that embracing an Electronic Institutional Repository with an open-access model not only enhances the dissemination of scholarly output but also maximizes the reach and influence of academic contributions. It aligns with the broader trend in academia towards digital accessibility, recognizing the transformative impact it can have on the visibility and scholarly impact of research outputs.

Experience has shown that in other universities it is difficult to get authors to deposit their articles/publications in the IR. In such universities, policies have been formulated to require both students and staff to publish their works in the IR. For example, Bailey, (2008) points out:

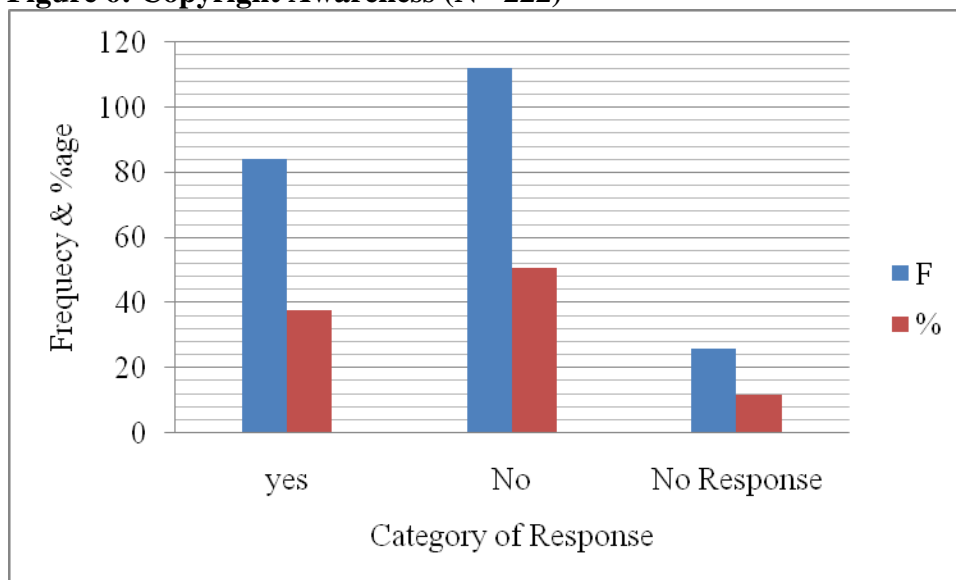
*“...without a requirement to do so (a "mandate") at the departmental, college, school, or institutional level, most institutions have found that it is challenging to get authors to deposit articles and other works in IRs. There can be meaningful disciplinary differences in self-archiving rates...”*

Several respondents advocated for the inclusion of peer-reviewed resources in the Institutional Repository (IR) to uphold Mzumbe University's esteemed reputation for producing high-quality publications. While this practice aligns with maintaining academic standards, participants also recognized the value of enriching the IR with non-peer-reviewed materials, such as lecture notes and unpublished research reports. The condition for inclusion, however, is contingent upon the verification and approval of these materials at the school, department, or faculty level.

This approach acknowledges the diverse nature of academic contributions and seeks to balance the need for rigorous scholarly validation to foster a comprehensive and informative IR at Mzumbe University. By involving the relevant academic units in the approval process, the university ensures that a wide range of valuable resources can contribute to the repository's depth and richness.

Furthermore, respondents were queried about their awareness of copyright laws and intellectual property rights governing scholarly publications, acknowledging the importance of understanding and adhering to legal frameworks in the academic realm. The findings are indicated in Figure 6 below.

**Figure 6: Copyright Awareness (N= 222)**



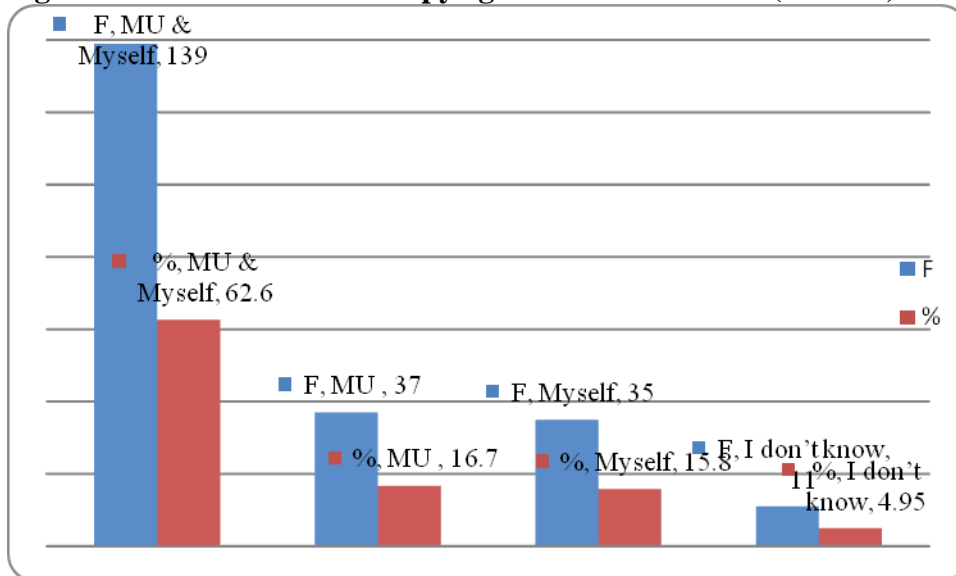
**Source: Field Data 2010**

Figure 6, shows that 112 (50.5%) of the respondents indicated that they are not aware of copyright issues. Only 80 (37.8%) indicated that they were aware of copyright issues, and 26 (11.7%) did not answer this question. Based on the findings, there is a great need to create awareness among the Mzumbe academic community on copyright issues and to persuade them to comply.

The respondents were asked who should own the copyright of works deposited in the IR. The

results are shown in Figure 7 below:

**Figure7: Who Should Own Copyright of IR Resources? (N = 222)**



**Source: Field Data 2010**

The findings as shown in Figure 7 indicate that 139 (62.6%) of the respondents thought that copyright to materials deposited in the MUIR should be retained by both the author and MU. 35 (15.8%) were of the opinion that copyright should be retained by the author, 37 (16.7%) said MU should have sole copyright, while 11(4.95%) did not know. Those who indicated that they do not know share similar views with Hoorn (2005) who says:

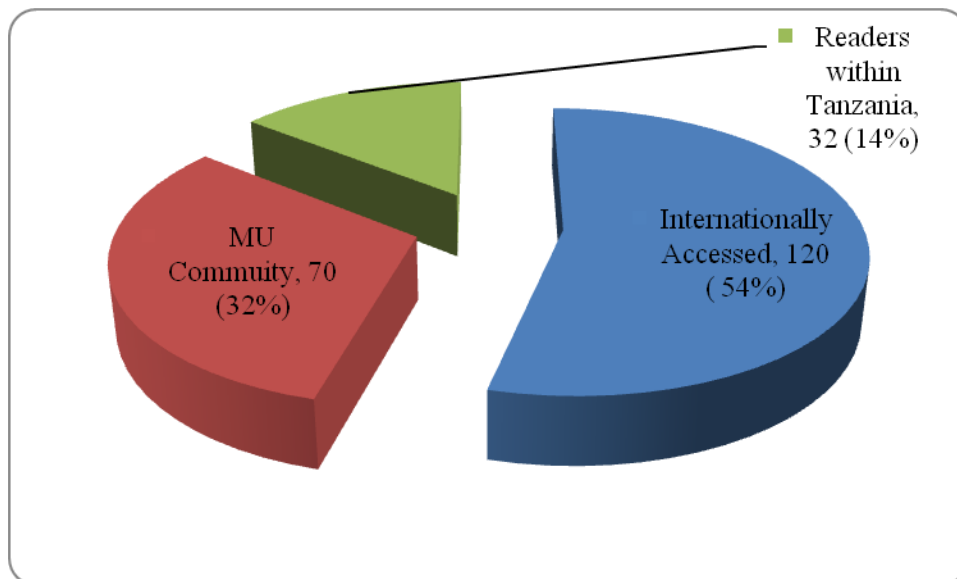
*“...even in cases where information resources are available within the institutions, the absence of appropriate information policies and strategies sometimes make it very difficult for information professionals to know which resources should be shared or made available for access in digital format.”*

Therefore authorities responsible must create policies and strategies for handling copyright issues before the MU IR is operationalised.

### **Modalities for Accessing the IR**

Respondents were asked who should access the IR. The findings are indicated in Figure 8 below:

**Figure 8: Who Should Access the IR (N =222)**



**Source: Field Data 2010**

In addressing this query, as illustrated in Figure 7, approximately 120 respondents (54.05%) expressed the viewpoint that the Mzumbe University Institutional Repository (MU IR) should have accessibility at national, regional, and international levels. Further 70 respondents (32%) advocated for access restricted solely to the Mzumbe University Community, while 32 respondents (14.4%) favored accessibility limited to within Tanzania. In line with this, a respondent shared in an interview:

*'If Mzumbe University's intellectual output is accessed worldwide, it may increase and elevate Mzumbe University's reputation, and its intellectual output will be widely cited.'*

The interview response emphasizes the diverse perspectives among respondents regarding the accessibility scope of the Mzumbe University Institutional Repository (MU IR). A majority, comprising 54.05%, believe that the repository should be accessible globally, spanning national, regional, and international levels. This broader accessibility is seen as a means to enhance Mzumbe University's reputation and increase the visibility of its intellectual output on a global scale. On the other hand, 32% of respondents express a preference for limiting access to the Mzumbe University Community, emphasizing a more localized and internal focus. Additionally, 14.4% of respondents advocate for access restricted to within Tanzania.

The interviewee's comment aligns with the sentiment favouring global accessibility, emphasizing that widespread access to Mzumbe University's intellectual output can contribute to elevating the university's reputation. The idea is that broader visibility can lead to increased citations and recognition, reflecting positively on the institution and its scholarly contributions.

A subset of respondents, comprising 32 individuals (14.5%), expressed the viewpoint that access to the Mzumbe Institutional Repository (IR) should be confined to readers within Tanzania. The researchers acknowledge and align with these perspectives, recognizing the diversity of opinions within the respondent pool. Notably, the majority of respondents advocate for international accessibility to materials deposited in the IR.

While affirming the prevailing sentiment, the researchers introduce a nuanced approach, considering the current nascent stage of the IR's development. Their viewpoint suggests that, during the initial stages of establishment, access should be exclusive to the Mzumbe University (MU) community. This phased approach is designed to prioritize internal stakeholders, addressing concerns related to the quality of publications deposited in the IR.

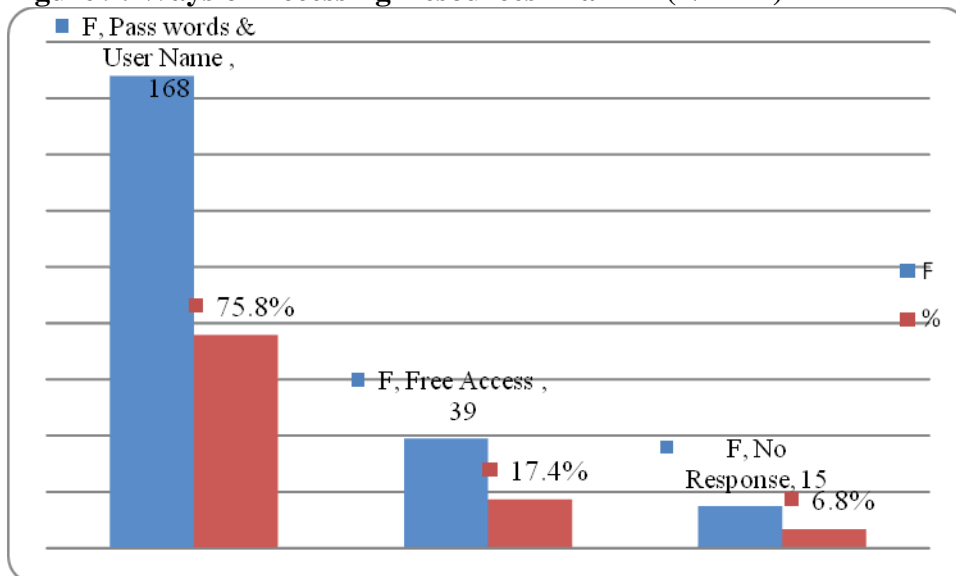
The researchers emphasize the need for a gradual expansion of access, with a proposal to initially provide access exclusively to the MU community. Subsequently, this access can be extended to external readers. This approach aims to proactively address potential challenges associated with the depositing of quality publications before allowing external parties to access the resources. It resonates with the insight shared by one respondent, who emphasized that

*"... Resources to be deposited should undergo a peer-review process to maintain the high quality of Mzumbe University publications."*

In essence, this strategy aligns with a cautious and deliberate progression, prioritizing internal stakeholders in the early stages and ensuring the establishment of robust quality control mechanisms before opening access to a broader external audience.

Respondents were asked to state how IR materials should be accessed by selecting from a checklist of answers. Findings are shown in Figure 9 below.

**Figure 9: Ways of Accessing Resources in an IR (N= 222)**



**Source: Field Data 2010**

When posed with this question, the majority of respondents, specifically 168 individuals (75.8%), advocated for a secured access system via passwords. In contrast, 39 respondents (17.4%) expressed the view that resources in the Institutional Repository (IR) should be freely

accessible without any conditions. A small portion, comprising 15 respondents (6.8%), chose not to provide an answer to this question. The utilization of usernames and passwords is deemed essential to ensure authorized access, mitigating the risk of misuse within the Mzumbe University Institutional Repository (MU IR).

A respondent shed light on this matter, emphasizing:

*"...Access to IR resources should be protected in such a way that one should not simply copy and paste materials or print without permission. This will help curb plagiarism, especially from students."*

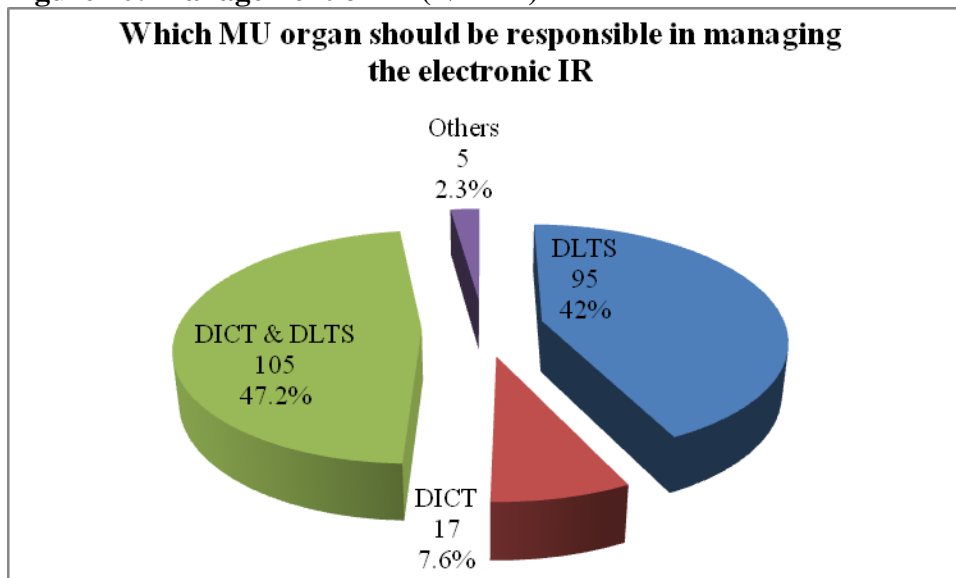
This perspective underscores the importance of implementing safeguards in the access mechanism to deter unauthorized use and mitigate issues like plagiarism, particularly among students.

Basically, researchers are of the opinion that care should be taken when modes of access are being set by MU stakeholders so that readers are not denied free access to e-resources deposited in the IR for academic purposes because the very essence of creating the IR is to ensure students and teaching staff access e-resources to support teaching and learning functions at the University. International readers interested in accessing the MU IR resources can subscribe. At present, no specific control mechanism is fully recommended by the team to give a chance to relevant authorities to explore the most appropriate approach to be used.

#### 4.3 Management of Mzumbe University Institutional Repository

In general, university libraries are responsible for managing institutional repositories and formulating policies for such repositories. However, in this study respondents were asked to propose who should manage the MU IR.

**Figure 10: Management of IR (N= 222)**



Source: Field Data 2010

In response to this question and as shown in Figure 10, 105 (47.2%) of the respondents were of the opinion that MU IR should be jointly managed by the Directorate of Library and Technical Services (DLTS) and the Directorate of Information and Communications Technology (DICT).

Whereas, 95 (42%) said the IR should be housed and managed by DLTS only, 17 (7.6%) said the MU IR should be managed and housed in the DICT, while 5 (2.3%) opted for other organs such as the Directorate of Research Publication and Postgraduate Studies. Naturally, the MU IR should be jointly managed by DICT and DLTS because the combined expertise will ensure the proper functioning of the IR. The library would take care of the metadata and organisation of knowledge while DICT staff would take care of technical aspects. These combined efforts would also ensure the sustainability of the IR for the benefit of current and future readers at Mzumbe University.

#### **4.4 Repository Software Packages**

To find out which software packages can be used for the IR, the respondents who were conversant with IR were asked to recommend an appropriate software package. Unfortunately, none of the respondents recommended a software package that could be used. Therefore, the researchers visited the University of Dar es Salaam, which has recently established its IR and found that they are using the software known as Dspace. This software is widely used in most university libraries to set up IRs. Dspace is an ideal software platform since it is open source software and does not require annual maintenance but does require investments in staff training and retaining (Bailey, 2006: 20; Platt, 2010: 3).

Therefore, this study recommends the Dspace platform for the MU IR establishment, because we can draw on the experiences and technical expertise of it from the University of Dar es Salaam which has already started implementing its IR.

## **Chapter Five: Summary, Recommendation and Conclusion**

### **5.0 Introduction**

This chapter presents the summary, recommendations conclusion and areas for future research based on the findings of the study.

### **5.1 Summary**

As indicated earlier, this study sought to investigate whether MU needs an IR from the readers' perspective.

Key findings revealed that a majority of the respondents support the establishment of IR based on the perceived potential benefits including increased visibility to be gained after its establishment as stated by 96% of the respondents. Some of the publications to be deposited in the IR as stated by the respondents include staff and students' research reports, books, articles, book chapters, students' theses and dissertations of high quality to maintain the image of Mzumbe University in the eyes of international readers. Since the aim of IR is to store institutional publications for institutional readers, some respondents suggested that access to IR resources be extended to readers outside the University to raise their reputation and that of Mzumbe University.

Concerning who should manage the IR, respondents suggested that the responsibility should be shared by the DLTS and the DICT to maximise the expertise of both Directorates.

Regarding the software that can store IR resources, the researchers recommend Dspace software because it is widely used by universities worldwide and has been proven to be successful.

Given that the establishment of IR could immensely benefit the MU community, the cooperation and commitment of management and staff at all levels is imperative so that IR can be established as soon as possible.

Findings further revealed that IR should be managed jointly by DLTS and DICT to take advantage of the expertise and experiences of staff in the two directorates and that staff capacity development should be an integral part of this work process.

### **5.2 Recommendation**

The establishment of an institutional repository (IR) is one of the more complex projects which librarians have been struggling to undertake due to its importance in improving access to research output.

Due to the complexities of projects of this kind that require the involvement of a variety of stakeholders, both technical and administrative support is crucial for its success. This will enable the Mzumbe University community to reap the benefits of IR in terms of wider access to scholarly works produced by its academicians.

As the success of any project requires adequate funding, a budget for items such as ICT hardware and software applications i.e. (heavy duty scanners/servers, installation of the same, staff training and publicising) are crucial for its creation and sustenance.

Since the initial start-up costs of the project are likely to be too high for the Directorate of Library and Technical Services to shoulder from its budget, Mzumbe University is requested to allocate an additional budget to the Library. This is because the project will benefit the whole MU community at the Main Campus, Dar es Salaam Business School and Mbeya Campus Colleges.

Therefore, every campus college, school, faculty, institute, and directorate, is requested to appoint a team of not less than two people to be involved in the implementation of IR. These will be coordinating matters related to the implementation of IR at their respective institutions and liaising with the Library.

The Directorate of Research Publications and Postgraduate Studies is also requested to formulate a policy that would make the deposition of research publications in the IR mandatory to enrich its contents.

To facilitate this exercise, authors are requested to submit their future publications in both print and electronic formats to their respective departments, institutes, directorates or faculties. This will enable soft copies of the submitted materials to be easily deposited in the IR in cooperation with staff from the faculties and the Library. The aim is to reduce the future costs of digitizing print/hardcopy publications.

Other issues that are recommended while implementing MU IR and its services include:

- Developing a plan to market and promote MU IR service;
- Address how MU IR will provide long-term preservation of digital materials, how it supports teaching, learning and research needs at the University;
- Provision of easily accessible training sessions in both MU IR use and submission process, as well as links to clear, online tutorials for utilizing the repository programme; and
- Developing an educational programme that will address Open Access, copyright issues, plagiarism, and the changes in scholarly communication.

### **5.3 Conclusion**

As stated in Chapter One, IR is an electronic archive or digital collection that stores publications produced by members of an academic institution. Its objective is to bring together publications into a collection, to facilitate the sharing of research information and its access.

The researchers therefore request the MU management to support and honour these findings so that IR can be established as soon as possible to take advantage of the advances made in ICT that facilitate fast access to information for the benefit of MU readers. This is important not only for increasing the visibility of MU publications as far as the external world is concerned but also for increasing the amount of electronic resources written by MU scholars that reflect the Tanzanian perspective. If this project materialises, the shortage of electronic resources written by MU staff and students currently being faced by readers would be reduced as stated by one respondent, “*when it comes to teaching, issues referring to the Tanzanian context, a lecturer is faced with a shortage of resources written by Tanzanians*”. According to the respondent, the reason for this is that the majority of Tanzanian scholars do not engage much in writing books, and for those few who do, the majority of their publications are found in print formats. The statement of this respondent indicates the need for depositing scholars’ publications in the IR to improve their circulation so that the contributions of Tanzanian scholars can be noted

by external readers, to increase their prestige. This is expected in the long run to improve the rankings of our University in Africa and beyond. This is currently not the case because, in a ranking study conducted in July 2010, Mzumbe University is not even among the best 100 Universities in Sub-Saharan Africa (CCHS, 2010). We need to reverse this alarming situation by establishing an IR which would advertise/showcase our abundant publications, which are currently in hardcopy/print format to external readers.

The depositing of resources in the IR is important in this information age in which libraries are being transformed by ICT from traditional libraries into digital libraries characterized by fast and wider access to information. This concurs with the argument of one of the respondents that:

*“Students coming to our universities belong to the net generation because they were born in the digital age where the internet is part of their daily lives and therefore, if information is not digitized, it is difficult for them to trace it”.*

As the trend of digitization continues, “many people predict that the digital age will wipe library bookshelves clean and permanently at the end of the 22<sup>nd</sup> century” (Sherman, 2007:1). Therefore, there are genuine reasons for publications of MU scholars to be digitized in line with the advances in ICT. If these efforts become successful in terms of digitizing publications written by MU staff and students, our library print collection will be converted into electronic format. These digitized resources will be useful to our current and future readers, due to the convenience and flexibility of access from any location without necessarily visiting the library provided that users have a reliable internet connection. It is therefore high time for Mzumbe University to be proactive in responding to changes brought about by advances in ICT so that access to information by our readers can be improved for their benefit and that of the University at large.

#### **5.4 Areas for Further Research**

During the interviews, focus group discussions and data analysis, several areas of further research were identified these include the following:

- Research on school and faculty publishing habits, examining who is publishing in institutional repositories. By identifying how scholars publish on campus, librarians have a better understanding of the materials that can be included in repositories.
- A more in-depth exploration of IR development at an institution, visiting key stakeholders over a while during IR development and implementation.
- Challenges of implementing Institutional Repositories
- Research on social-economic benefits realized by Tanzanian, students, researchers and the public through successful deployment and utilization of IR

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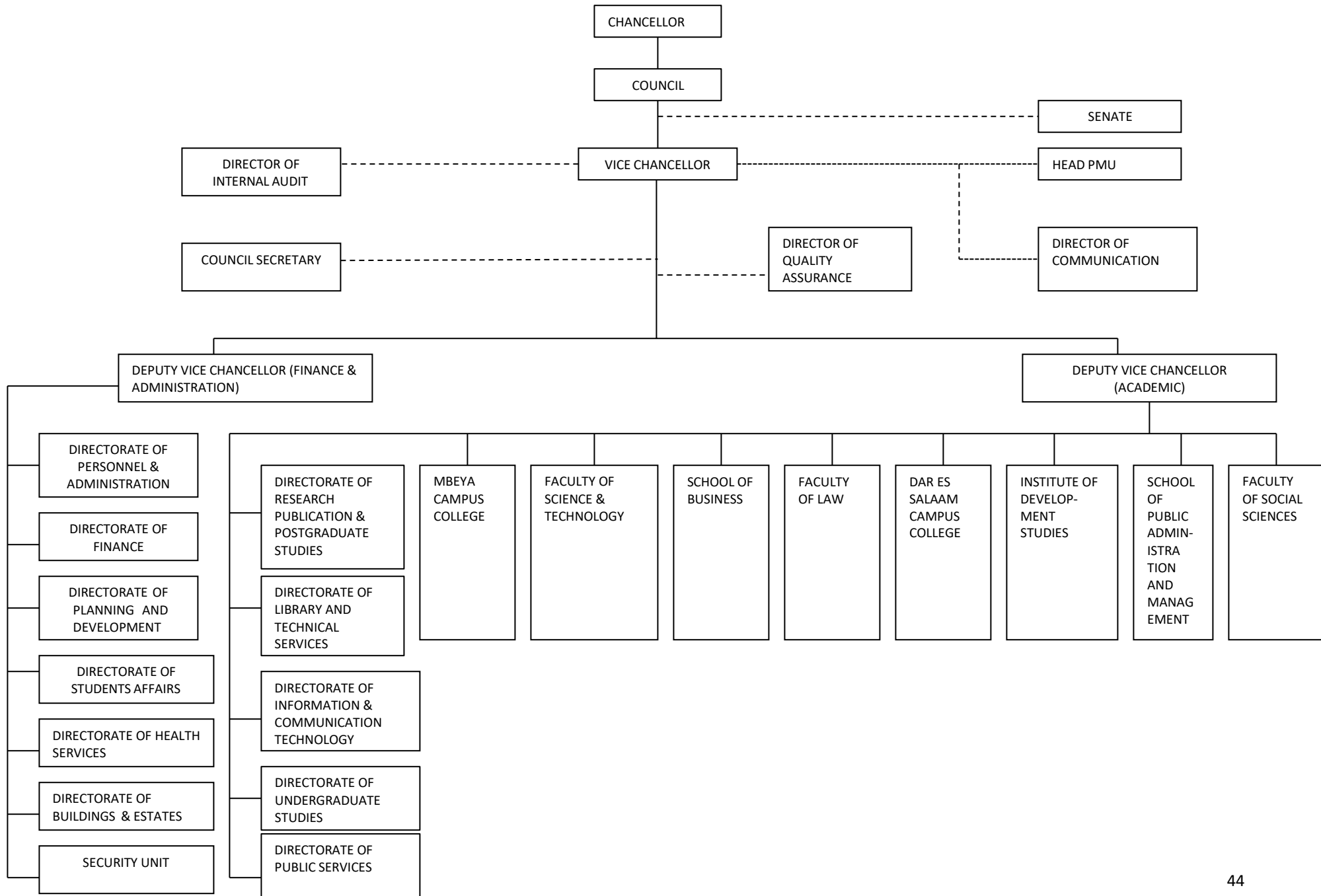
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## Appendix 1: Organisational Chart of Mzumbe University



## Appendix 2: Staff Questionnaire

**Please circle your selected answer in each question**

### **Section A (about yourself)**

1. On which Campus are you working/stationed?
  - a) Mzumbe Main Campus
  - b) Dar es Salaam Business School
  - c) Mbeya Campus
  
2. Your gender
  - a) Male
  - b) Female
  
3. Level of education
  - a) Diploma
  - b) Degree holder
  - c) Masters
  - d) PhD
  - e) Others (please specify)\_\_\_\_\_
  
4. What is your academic rank?
  1. Tutorial Assistant
  2. Librarian Trainee
  3. Assistant Lecturer
  4. Assistant Librarian
  5. Librarian
  6. Lecturer
  7. Senior Lecturer
  8. Senior Librarian
  9. Associate Professor
  10. Professor
  11. Others, (please specify)\_\_\_\_\_
  
5. What is your area of expertise?
  - a) Law
  - b) Management
  - c) Commerce
  - d) Education
  - e) Economics
  - f) Information & Communication Technology
  - g) Other, (please specify)\_\_\_\_\_
  
6. Where do you generally publish your research articles?
  - a) In local academic journals and books
  - b) In international journals/ books
  - c) Both in local and international journals/ books
  - d) Others, ( please specify)\_\_\_\_\_

7. Are these journals/books available on the internet for free access by internet users?
  - a) Yes
  - b) No
  - c) Don't know
  
8. Are you aware of opportunities to publish your research articles in Electronic Institutional Repository/ open access journals which provide free access to research articles through the World Wide Web (Internet)?
  - a) Yes
  - b) No

**Section B: Institutional Electronic Repository**

*Open Access Institutional Repositories are online digital archives, established by academic and research institutions in order to make the research and intellectual outputs of their researchers and academicians widely accessible to users via the Internet. There are also subject-based repositories or archives established by bodies other than academic or research institutions for the purpose of providing open access to research outputs or articles in a particular field of study like Science or the Humanities. Institutional repositories are now clearly and broadly being recognised as essential infrastructure for scholars in the digital world.*

**(I) IR AWARENESS**

9. Are you familiar with the term “Open Access Institutional Repository/ Electronic Archive” with reference to scholarly research?
  - a) Completely unfamiliar—I have never heard of this before
  - b) I have come across this concept but know nothing about it
  - c) I have come across this concept and know a little about it
  - d) I have come across this concept and know quite a bit about it
  - e) I am very knowledgeable about open access Institutional Repository or archive and I have used it.

If your answer is **c, d, or e**, please indicate the software platform to be used if you know.
  
10. Please rank the anticipated importance of establishing IR at Mzumbe University following the 5 systematic order provided: (v) strongly agree, (iv) agree (iii) disagree (ii) strongly disagree (i) undecided.

Category of response	Strongly Agree	Agree	Disagree	Strongly Disagree	Undecided
IR will increase MU library's role as a viable partner in research enterprise	v	iv	iii	ii	i
Established IR will lead to long-term preservation of MU digital output	v	iv	iii	ii	i
IR will help capture the intellectual output of MU scholars	v	iv	iii	ii	i
Established IR means better services for MU learning community	v	iv	iii	ii	i
IR will increase visibility of MU's intellectual output and citation, and	v	iv	iii	ii	i

Category of response	Strongly Agree	Agree	Disagree	Strongly Disagree	Undecided
therefore increasing MU's reputation nationally and worldwide					
IR at MU may help to reduce the time spent in the dissemination of research findings to the scholarly community and policy makers	v	iv	iii	ii	i
IR will reduce users' dependence on MU library's print collection, especially theses, dissertations research papers and articles written by MU scholars	v	iv	iii	ii	i
I prefer print/hard copy materials to electronic resources stored in IR	v	iv	iii	ii	i
I prefer electronic resources stored in IR to print/hard copy materials	v	iv	iii	ii	i
The primary reasons used to persuade academicians of the benefits of placing their output in an Institutional Repository is exposure	v	iv	iii	ii	i
IR is an effective way of highlighting an institution's total academic outputs, which are otherwise spread among many publications	v	iv	iii	ii	i
IR establishment will lead to increased knowledge sharing	v	iv	iii	ii	i
IR will maintain control over MU's intellectual property	v	iv	iii	ii	i
IR will increase access to knowledge assets such as numeric, video, audio, and multimedia datasets produced by the MU community	v	iv	iii	ii	i
IR will help avoid unnecessary duplication	v	iv	iii	ii	i
IR will help to serve as quality control - particularly peer-reviewed articles	v	iv	iii	ii	i
IR will facilitate research assessment and knowledge management by collecting digital resources in a single location	v	iv	iii	ii	i
Publications in the IR will be read more widely and cited frequently, hence increasing prestige of authors and institutions they belong to	v	iv	iii	ii	i

IR will promote knowledge sharing among academicians	v	iv	iii	ii	i
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Category of response	Strongly Agree	Agree	Disagree	Strongly Disagree	Undecided
IR will reduce the scramble for few library print/hard copy materials produced by MUstaff	v	iv	iii	ii	i
IR will provide MU scholars with publishing opportunities to	v	iv	iii	ii	i

11. Have you ever used online information stored in an Electronic Institutional Repository?

- a) Yes
- b) No

### (II) ATTITUDES TOWARD IR

12. In your opinion do you see the importance of establishing IR at MU?

- a) Yes
- b) No
- c) I don't know

13. Do you support the establishment of IR at Mazumbe University?

- a) Yes
- b) No

### (III) TYPES OF RESOURCES TO BE STORED

14. What type of resources do you think should be stored/digitized if Mzumbe University establishes an Institutional Repository? (*Select all that apply*).

- a) Theses and dissertations (Doctoral theses, Masters theses and dissertations)
- b) Academic publications: staff research reports, articles published in peer-reviewed journals, books and book chapters and abstracts
- c) Articles published in magazines, newspapers, pre-print and post-print materials
- d) Grey literature (technical and project reports, internet publications, study manuals, working and discussion papers, non-peer-reviewed conference and workshop materials (speech/lecture materials)
- e) Audio-visual items such as still and moving images/pictures
- f) All the above
- g) Others ( please explain) \_\_\_\_\_

15. When you deposit a research work in the Mzumbe University Institutional Repository, who do you think should retain the copyright of the work?

- a) Myself
- b) Mzumbe University as the publisher
- c) Don't know
- d) Both MU and myself
- e) Others( please explain) \_\_\_\_\_

16. Are you aware of the publisher's copyright policies?

- a) Yes

b) No

**(IV) Access to E-Resources in the IR**

17. Can you suggest ways in which materials in the Mzumbe University IR to be established will be accessed?
- a) Through user name and password
  - b) Free access
  - c) Others (please specify)\_\_\_\_\_

18. Who should access materials in the Mzumbe University IR to be established?
- Staff in my faculty, directorate/institute
  - All MU staff and students
  - Public (all Tanzanians)
  - Internationally accessible
  - All the above
  - Others (please specify)\_\_\_\_\_
19. When you carry out your research or write an article, you need access to articles written by others. These may be in open access repositories/archives, open access journals or subscription-based journals. We are interested in how easy it is for you to access the articles you need to read, whatever the source. Which one of the following statements best applies to you?
- I have easy access to all the articles I need to read
  - I have easy access to most of the articles I need to read
  - I have easy access to some of the articles I need to read
  - I have easy access to very few of the articles I need to read
- (V) Management of IR**
20. Which University organ should be responsible for managing IR and its learning resources?
- Library
  - DICT
  - Shared responsibility between DICT& DLTS
  - Others (please specify)\_\_\_\_\_
21. Establishment of an Institutional Repository at Mzumbe University is:
- Very Important
  - Important
  - Neutral
  - Unimportant
  - Very unimportant
22. Do you think that the establishment of an Institutional Repository at Mzumbe University will enhance the global ranking and reputation of the University?
- Yes
  - No
  - Don't know
- If possible give reason for your answer*\_\_\_\_\_
23. Do you think that the establishment of an Institutional Repository at Mzumbe University will enhance **your** reputation as a member/scholar of this institution?
- Yes
  - No
  - Not sure

24. In what ways will the establishment of an Institutional Repository by Mzumbe University enhance your reputation as a member/scholar of the institution? (*Select all that apply*)
- a) Will make my research publications more visible and widely accessible
  - b) Will motivate me to publish more research work to be deposited in the repository
  - c) Will boost the reputation of Mzumbe University and by implication my reputation as a member/scholar of Mzumbe University
  - d) All the above
  - e) Don't know
  - f) Others, please explain: \_\_\_\_\_

25. Researchers and academicians at MU and Tanzania in general will benefit immensely if Mzumbe University establishes an Open Access Institutional Repository.
- a) Strongly agree
  - b) Agree
  - c) Neutral
  - d) Disagree
  - e) Strongly disagree

26. Do you think there should be a national policy explicitly directing or supporting the development of institutional repositories in academic and research institutions in Tanzania?
- a) Yes
  - b) No
  - c) Don't know

27. In general, what are your objectives when publishing scholarly work? Please indicate the extent to which you agree or disagree with the following statements by circling whichever applies:

**(5 = strongly agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = strongly disagree)**

I publish to gain direct financial reward					
I publish to gain personal prestige in my field					
I publish to communicate my results to my colleagues					
I publish to advance my career					
I publish to increase my chances of gaining funding					

*Other (please specify)* \_\_\_\_\_

28. What search tool(s) do you use when searching on the internet?
- a) Search Engines like Google and Yahoo
  - b) I visit Open Access websites
  - c) I use bibliographic databases
  - d) I do not use the internet for my research

- e) All the above
- f) Others (Please specify)

29. For an IR to prosper there must be a policy of depositing/ publishing materials. Please suggest any item/items which you think can be included in the MU IR policy to be established

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Any other comments relating to the need to establish Institutional Electronic

Repository at Mzumbe University\_\_\_\_\_

Please include your contact email below if you wish to receive an electronic copy of the final report resulting from this research. *(Please note that we will use your email solely for the purpose of communicating with you in relation to this research and no other purpose).*

Email: \_\_\_\_\_

Thank you for your cooperation

### Appendix 3: Students Questionnaires

1. Name of the campus
  - g) Mzumbe Main Campus
  - h) Dar es Salaam Business School
  - i) Mbeya Campus
  
2. Your gender
  - c) Male
  - d) Female
  
3. Please indicate your area of study (especially academic discipline) e.g. MBA, BBA, LLM, LLB etc. \_\_\_\_\_
  
4. Educational level
  - d) Certificate student
  - e) Undergraduate student
  - f) Postgraduate student
  - g) Others (please specify) \_\_\_\_\_

#### **(I) IR AWARENESS**

5. Have you ever heard of an Electronic Institutional Repository (IR)
  - h) Yes, but not used
  - i) Yes, heard and used
  - j) Neither heard not usedIf "Yes" what is the software platform used \_\_\_\_\_
  
6. Please rank the anticipated importance of establishing IR at Mzumbe University following the 5 systematic order provided: (v) strongly agree, (iv) agree (iii) disagree (ii) strongly disagree (i) undecided.

Category of response	Strongly Agree	Agree	Disagree	Strongly Disagree	Undecided
IR will increase MU library's role as a viable partner in research enterprise	v	iv	iii	ii	i
Established IR will lead to long- term preservation of MU digital output	v	iv	iii	ii	i
IR will help capture the intellectual output of MU scholars	v	iv	iii	ii	i
Established IR means better services for MU learning community	v	iv	iii	ii	i
IR will increase visibility of MU's intellectual output and citation, and therefore increase MU's reputation nationally and worldwide	v	iv	iii	ii	i
IR at MU may help to reduce time spent in dissemination of research findings to scholarly community and policy makers	v	iv	iii	ii	i
IR will reduce users' dependence on MU library's print collection, especially theses , dissertations research papers and articles written by MU scholars	v	iv	iii	ii	i
I prefer print/hard copy materials to electronic resources stored in IR	v	iv	iii	ii	i
I prefer electronic resources stored in IR to print/hard copy materials	v	iv	iii	ii	i
The primary reasons used to persuade academicians of the benefits of placing their output in an Institutional Repository is exposure	v	iv	iii	ii	i
IR is an effective way of highlighting an institution's total academic outputs, which are otherwise spread among many publications	v	iv	iii	ii	i
IR establishment will lead to increased knowledge sharing	v	iv	iii	ii	i
IR will maintain control over MU's intellectual property	v	iv	iii	ii	i
IR will increase accessibility to knowledge assets such as numeric, video, audio, and multimedia datasets produced by MU community	v	iv	iii	ii	i
IR will help avoid unnecessary duplication	v	iv	iii	ii	i
IR will help to serve as quality control - particularly peer reviewed articles	v	iv	iii	ii	i
IR will facilitate research assessment and	v	iv	iii	ii	i

knowledge management by collecting digital resources in a single location					
Publications in the IR will be read more widely and cited frequently, hence increasing prestige of authors and institutions they belong to	v	iv	iii	ii	i
IR will promote knowledge sharing among academicians	v	iv	iii	ii	i
IR will reduce scramble for few library print/hard copy materials produced by MU Staff	v	iv	iii	ii	i
IR will provide scholars with publishing opportunities to	v	iv	iii	ii	i

7. Have you ever used online information stored in an Electronic Institutional Repository/electronic archive

- c) Yes
- d) No

**(II) ATTITUDES TOWARD IR**

8. Do you support the establishment of IR at Mzumbe University?

- a) Yes
- b) No

9. In your opinion do you see the importance of establishing IR at MU?

- a) Yes
- b) No

c) I don't know

10. If yes would you please mention some of its benefits to the readers

**(III) TYPES OF RESOURCES TO BE STORED**

11. According to your opinion mention the types of resources to be stored in the IR for use by readers \_\_\_\_\_

12. Would you like to see your thesis/dissertation stored/published in the established Mzumbe University IR

- c) Yes
- d) No

e) If No give reasons for your response and alternative measures \_\_\_\_\_

**(IV) ACCESS TO E-RESOURCES IN THE IR**

13. Who should access materials deposited in the MU Electronic Repository

- f) MU community
- g) Readers within Tanzania
- h) Internationally accessed

14. What in your opinion should be done by MU Library to increase access to? Electronic sources of information? \_\_\_\_\_

**(V) MANAGEMENT OF IR**

15. Which one of the following MU organs should be responsible for managing the Institutional Repository?

- f) Mzumbe University Library

- g) DICT
- h) Shared responsibility (DICT & DLTS)
- i) Others (please specify)\_\_\_\_\_

16. When you deposit a thesis/dissertation or papers in Mzumbe University Institutional Repository who do you think should retain the copyright of the work?

- c) Myself
- d) Mzumbe University
- e) Both myself & the University
- f) I do not know
- g) Others ( please specify)\_\_\_\_\_

Please give reasons for your response\_\_\_\_\_

17. For an IR to prosper there must be a policy of depositing/publishing materials.

Please suggest any item/items which you think could be included in the MU IR policy to be established \_\_\_\_\_

Any other comments relating to the establishment of Institutional Repository at Mzumbe University\_\_\_\_\_

Please include your contact email below if you wish to receive an electronic copy of the final report resulting from this research. *(Please note that we will use your email solely for the purpose of communicating with you in relation to this research and no other purpose).*

Email: \_\_\_\_\_

Thank you for your cooperation