Reforming Information Science Training at The University of Zambia: The Need for an Industry Responsive Curriculum

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ABSTRACT
In the academic field of information science-related training and information management professional practice, the role of information in operations and decision-making in organisations has been overly emphasized yet not so much evidence is available in real practice, especially in developing economies. The training and envisaged professional practice largely remain theoretical and vague as most academic programmes offered in information science are skewed towards the management of collections in libraries, information centres, and archival institutions. Businesses and other ordinary organisations rarely have information management departments yet they are the majority consumers of information resources that they utilise in decision making. It is from the above background that using a qualitative approach through literature review, this paper addresses the need for information science academic training that promotes the practical utilization of information resources by all organisations in their decision making processes.

Keywords: Information, Information Resources, Information Science Training, Library and Information Science

1. INTRODUCTION

Organisations utilise four main resources namely: people; physical; finance; and information for them to achieve their mandates (Griffin, 2002; Detlor, 2010; Smit et al, 2013; Colak and Elegel, 2020). To this end, national economies have respective sectors aligned to these resources such as the labour sector, financial sector, infrastructure development sector, and information sector (Moore, 1997; Saget and Yao, 2011; Miller and Chatterji, 2013). To build capacity on their utilization, academic training institutions have programmes designed around these resources (Organisation for Economic Co-Operation and Development, 2006; University of Reading, 2009; Coyle-Shapiro et al, 2013; Mulang, 2015; Haritha and Reddy, 2017; Starˇcek and Trunk, 2018; National University, 2018; Durban University of Technology, 2022). Further, to derive value from these resources organisations design structures and formulate guidelines and operational tools in the form of laws and policies (Armstrong, 2009; Wixley and Everingham, 2015; Chisanga, 2019).

Implementing the use of organisational resources requires the application of management functions of planning and decision making, organising, controlling, directing staffing, and leading (Winfield, Bishop, and Porter, 2000; Griffin, 2002; Cole and Kelly, 2011; Boddy, 2008; Smit et al, 2013). This management undertaking entails putting into place, functional departments such as the human resources management department and finance department. Although human and financial resources have such departments created for them, information resources have not received similar attention in most organisations. Thus, very few organisations have departments attributed to the management of information. Where information

resources are given prominence, such efforts are in most cases skewed towards the management of collections in libraries, or facilitating operations in registries and records centres. Similarly, information of enduring value is usually hidden in archival institutions where it is rarely accessed. However, scholars such as Nasir et al (2020) still re-emphasise the need to have information management departments in organisations.

It is because of the above prevailing situation in most Zambian organisations and probably in most developing counties that this paper discusses a proposal on reforming curricula for information science training in Zambia. In addition, the need is motivated by the lack of a visible information sector, cohesion among the various information industries, and a less streamlined curriculum for information science training. The lack of visibility for the professions could be attributed to many reasons including the lack of legislation to promote the profession, skewed information science training, and lack of integration among the various information science industries.

To appreciate the status of information science training in Zambia, this paper uses a qualitative approach through a literature review. The paper has three sections namely: the place of information science in national economies; the status of information science training in Zambia; and proposed information science training reforms for Zambia. Further, the paper concludes by providing recommendations as policy alternatives that could be explored by training institutions and the government in reforming information science training in Zambia.

2. PURPOSE OF THE STUDY

The purpose of this paper is to propose reforms for information science training in Zambia. Specifically, the study aimed to highlight the following:

i) the place of information science in national economies;
ii) the status of information science training in Zambia; and
iii) proposed information science training reforms for Zambia.

3. METHODOLOGY

This study followed a qualitative approach. Data was collected through desktop review and observations. The data collected through desktop review was obtained through making searches online. On the other hand, concerning the data obtained through observations, the authors have been exposed to the information environment for a long time having been active participants through teaching and researching, working in various organisations (information provision and non-information provision institutions) where they were involved in the management of collections of information resources and utilised information resources in decision making while executing their duties on various organisational operations.

4. THE PLACE OF INFORMATION SCIENCE IN NATIONAL ECONOMIES

Information science is an academic discipline that is concerned with the study of information resources to project their strategic and operational value to national development and organisational performance. It is argued that information is a primary material in the national development processes as well as an input in the operations of all organisations (Griffin, 2002; Smit et al, 2013; Akpeli, 2019; Eroglu and Cakmak, 2020). The discipline also evolved from the need to control the explosion of information resources (Bawden and Robinson,2016; Yan, 2011). This drive has been followed by the need to manage information resources that beset the information society, information economies, information sectors, and information industries (Moore 1997; United Nations Conference on Trade and Development, 2007; Eroglu and Cakmak, 2020). Figure 1 below illustrates the causal relationship between information society to information industries.

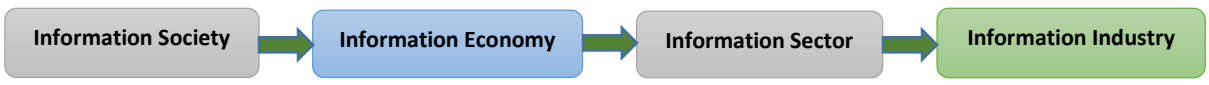

Figure 1: From Information Society to Information Industry Continuum

Arising from Figure 1 above, national economies have different sectors and the information sector is but one of them (Moore, 1997; Arent et al, 2014). The information sector comprises four industries namely: Information content; information communication; information processing; and information delivery (Moore, 1997). The purpose of these industries is to ensure that information as an organisational resource is utilised across all types of organisations in the various sectors of the economy.

Countries and organisations that value information have plans, laws, policies, and structures for governing and managing information resources (New Zealand Government, 2017; Aston University, 2020; UK Parliament, 2020; Curtin University, 2021). In such countries, not only is the impact of the information sector felt in their economies to influence information collection management and provision, but that information is considered a tool for competitive intelligence and advantage in business. To facilitate this role, it implies that entities utilise information in decision making as demonstrated in Figure 2 below.

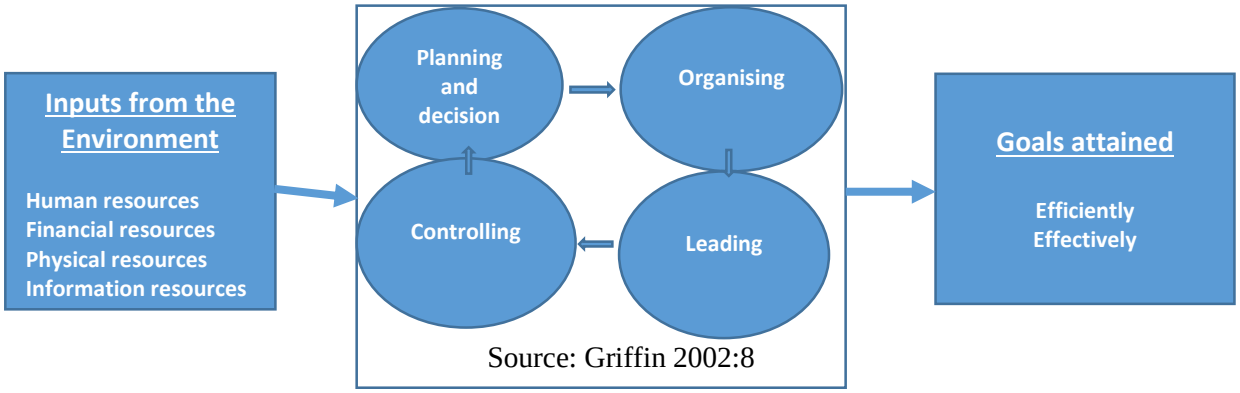

Figure 2: Management in Organisations

It is argued by authors such as Opoku (2015) that organisations that manage their information resources effectively and efficiently enjoy several benefits including the promotion of good governance; source of business intelligence; source of competitive advantage; promoting sound decision making; support business continuity; improve efficiency and productivity; and creation and preservation of corporate memory.

5. THE STATUS OF INFORMATION SCIENCE TRAINING IN ZAMBIA

To appreciate the nature of information science, Saracevic (1995: para 3) argues that there is a need to understand its characteristics as they form "a framework for understanding the past, present and future of information science". Accordingly, Saracevic (1995: para 3) presents the characteristics as being, "interdisciplinary in nature", inexorably connected to information technology" and "an active participant in the evolution of information society" and these three characteristics, he concludes by suggesting that "information science has a strong social and human dimension, above and beyond the technology".

The interdisciplinary nature of information science is seen in fields such as librarianship, computer science, cognitive science, communication, and journalism (Saracevic, 1995; Yan, 2011). Its evolution can be traced back to the period 1945 to 1950 when it appeared both as an academic concept and professional practice. This is why fields such as librarianship had already emerged and were being considered professions (Bawden and Robinson, 2016; Yan, 2011). Accordingly, Bawden and Robinson (2016) argue that:

> *Information science emerged later, in the mid-twentieth century, from the documentation movement of Paul Otlet, and from the special libraries and industrial information sector... The term itself was first used in the 1950s, and the first academic courses in the subject were established at City University London in 1961 (Bawden & Robinson, 2010). These developments culminated in the*

> *establishment of the first university department of "Library and Information Science," at Pittsburgh in 1964; numerous other departments changed their names to match.*

Yet still, Yan (2011, p.22) indicates that:

> *"In 1967, Manfred Kochen completed a simple but successful documentation search experiment by computer at IBM, and he named the experiment "Information Science Experiment" [20]. It aroused the great interest of the American Documentation Institute. In 1968, this Institute took action quickly to change its name to the American Society for Information Science [21] and then to the American Society for Information Science and Technology (ASIS&T) in 2000. Immediately following this action, most of the departments or schools of Library Science in the United States (and in some other countries) were renamed as departments or schools of Information Science or Library and Information Science…."*

Owing to the above background regarding the evolution of the academic discipline of information science, several scholars have defined the concept of information science. According to Borko (1968), "Information science is that discipline that investigates the properties and behavior of information, the forces governing the flow of information, and the means of processing information for optimum accessibility and usability" Williams (1987/1988) observes that "information science brings together and uses the theories, principles, techniques, and technologies of a variety of disciplines toward the solution of information problems". Further, Saracevic (2009) defines information science as "the science and practice dealing with the effective collection, storage, retrieval, and use of information."

Following global trends, information science related training in Zambia began in 1967 when the University of Zambian introduced a minor degree programme in library studies. Both the departmental nomenclature and nomenclature for the training programmes have evolved as indicated in Table 1 and Table 2 below.

Table 1: Changes to Departmental Names in the period 1972 to 2022 by Year of Graduation

Period	**Name**
1972 - 1997	Department of Library Studies
1998 - 2015	Department of Library and Information Studies
2016 to date	Department of Library and Information Science

Source: University of Graduation Directory 2016

Table 2: Changes to Training Programmes in the period 1972 to 2022 by Year of Graduation

Period	**Programme**
1972 - 1975	Certificate in Library Studies
2014	Certificate in Library and Information Studies
1972 - 1986	Diploma in Library Studies
1984 - 1992	Diploma in Librarianship
2009 – to date	Diploma in Records Management
2015 – to date	Diploma in Library and Information Science
1974 - 1996	Bachelor of Arts with Library Studies
1998 - 2015	Bachelor of Arts with Library and Information Studies
2016 –to date	Bachelor of Arts with Library and Information Science
2022 -	Bachelor of Records and Archives Administration
2022 -	Bachelor of Information Communication Technologies with Education

Source: University of Graduation Directory 2016

As can be seen from Table 2 above, all the programmes that have been offered by the Department of Library and Information Science at the University of Zambia since its inception, do not target the management of information as an organisational resource that impacts decision making but as collection management, archives administration and teaching tool. It is no surprise that almost 60 years after independence, Zambia still lacks laws and policies on the need to effectively govern and manage its information resources. This void is contrary to what other professions such as engineering, accounting, and human resource have done in this regard as they have laws that govern their practice.

6. PROPOSED INFORMATION SCIENCE TRAINING REFORMS FOR ZAMBIA

As already observed earlier, the four main resources managed in organisations these being human, finance, physical, and information resources. Training in the management of these resources focuses on the management of the resources and is not tied to institutions where the resources could be found and managed. For instance, all organisations use finances in their operations and there are no training programmes that are called "Banks and Financial Management". Similarly, there are no courses that are called "Super Markets and Sales Management" or "Hospitals and Medicine or Health Services Management". However, in the case of information resources, we have courses called Library and Information Science" which could be misinterpreted as information science is a discipline for libraries only. To avoid this misnomer, the focus of information science training should be on information assets and their application in operations. This proposal is in line with Yan (2011:22) who argues that "facing the emergence of various information disciplines, the library, and information science school is looking forward to a journey of discovery and adaptation to meet upcoming new challenges". Further, the proposal is anchored on other reasons including the fact that all organisations have governance structures that rely on accountability and transparency in the management of organisations an aspect that is only attainable through effective information management practices; all governance and management structures and operations in organisations utilise information in decision making; and that all organisations utilise information systems to keep information assets for operations.

7. CONCLUSIONS AND RECOMMENDATIONS

This paper has presented a motivation for reforming information science training in Zambia. It has highlighted the current status of information science training in Zambia which has been established to be biased towards librarianship, records management, and utilization of ICTs in pedagogy. Because all governance and management functions in organisations utilize information in their day-to-day activities, the paper has recommended the need for the current training to come out of its shell and be conspicuously seen to be training information science which should impact all types of organisations in the various sectors of the Zambian economy. It is also envisaged that such an approach to the training of information science would result in organisations creating departments for information management, an aspect which would promote the practice of information management in organisations, project the correct image of the field of information science, and ultimately grow the information science discipline and profession in Zambia.

Given the significance attached to the utilization of information resources and taking into account the gaps in the current training in information science in the country, the following measures a recommended:

i) The Department of Library and Information Science should be renamed "Department of Information Science" to promote the significance of information in all types of organisations;
ii) The training in information science should be interdisciplinary and focus on the management of information content (economic asset and organisational resource) applied across all economic sectors and organisational operations;
iii) The current degree programme in library and information science should be reviewed and renamed BA in Information Science with specializations in Librarianship, communication, information management, information technology, knowledge management, and business management;
iv) The Department should consider introducing other degree programmes in Librarianship, Knowledge Management, Information Management, Information Communication Technology,

Information, Organisational Communication, Business Information Management, Business, and Knowledge Management, and Information Technology and Organisational Management.

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