

*Full Length Research Paper*

# **The role of e-governance in facilitating information needs in higher learning institutions: The case of Mzumbe University in Morogoro, Tanzania**

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**E-governance is defined as the use of Information and communications technology (ICT) by different actors of the society with the aim to improve their access to information. There have been different initiatives by the government, such as laying down foundation for network management centres, to facilitate the use of ICT and the focus has been to use them more efficiently and effectively. ICT is a major instrument for facilitating decision making and a quick service delivery in higher learning institutions across the globe. In developing countries, particularly Tanzania, higher learning institutions are facing the challenge of poor e-governance infrastructure. Information flow and sharing of internal and external environment at Mzumbe University is facilitated and coordinated by the Information and communication technology's department of the university.**

**Key words:** E-governance, information and communications technology (ICT).

## **INTRODUCTION**

Researchers have proved that governments are moving forward in e-government development around the world. Despite the high demand placed by e-government on multitude foundation pillars, including prerequisites of infrastructure and capacity development, the progress of e-governance is still low. This paper focused on the exploration of the organisation and environment of Information and communications technology (ICT) at Mzumbe University, methods through which e-governance facilitates information needs in different levels at the university and lessons the university can learn from international cases and its application to local situations.

The methodology employed, included the use of secondary data, current papers of e-governance in different journals, international cases indicating the application of e-governance and current books, which formed the theoretical bases of this paper.

The findings indicate that the organisation of ICT and information needs, in various levels at the university, is facing many challenges relating to poor ICT infrastructure both in front and back offices.

## **ORGANISATION AND ENVIRONMENT OF MZUMBE UNIVERSITY'S ICT**

The ICT's internal and external environment starts with the information needs, which stimulate data collection, store and retrieve analysis, and access and communication, which create an impact on improving the delivery of service. Information needs, based on planning and management and data collection, are facilitated by input from routine stakeholders, appraisal and survey, while store and retrieve analysis is shaped by the geographical information system. Communication use and projects promotion shape access to communication, whereas ICT is shaped externally by the national cultural information and information changes on technology and access to International comparative information globally (Forbes, 2009).

However, information needs at the university are externally based on its collaboration with other local and foreign universities and institutions to upgrade its programme through sharing competencies and experience and accessing the learning input. Some of the

external institutions that collaborate with the university through joint library and research, joint doctoral supervision and training programme, and NUFFIC funding are Sokoine University of Agriculture, Agder University college and Groningen University (Njonvu, 2006).

Through the centre for continuous education, the university collaborate with the government, non-government and private sectors in offering tailor-made distance learning depending on the requirement. The university has also established the education department, which is responsible for capacity building through promoting distance learning.

On the side of the internal environment, the university has four computer laboratories for students and one for staffs. Moreover, the total number of computers in the laboratories is 400. Also, there are 14 additional computers, printers in different offices and a local area network that uses cat 6, which covers 100% of the offices and classrooms. The university is connected to the internet via VSAT satellite dish at 256/512 kbps in the main campus and 128/256 kbps in the two other campuses (Njonvu, 2006).

The university has in its corporate plan the strategy for improving ICT services by provision of infrastructure and updating of its human resources, and it also has a plan to connect the three computer laboratories with wireless services and videos (Njonvu, 2006).

### **INFORMATION NEEDS AND THE ROLE OF E-GOVERNANCE AT DIFFERENT LEVELS**

Normally, the top management needs the information of the 'executive system' to show whether or not the organisation is going on the right direction and at the right speed, in order for it not to be blown up. The middle level managers need information on how the operational level is performing and they need information from the external sources to monitor the business environment. Also, they need voluminous information to study the operational levels, for example the processing planning applications and tax forms, where there are normally standard rules and procedures (Reeve, 1999). The information needs of the university are seen in the following categories:

1. The top management needs information on strategic planning, performance of the institutions, revenue and expenditure of the institutions. This information can be available by the use of website and computers.
2. The performance of the institution and staffs in general, final examination results, expenditure and revenues, and enrolment rate. This information is made available through computers and, manually, by operational staff.
3. Rules and regulations of the examination, workload allocation and workload policy information. The information is made available through computers and

sometimes manually.

- Rules and regulations, online forms for application and registration of candidates (Njonvu, 2006).
- External partners need information on infrastructure, enrolment rate of students, staff development information, courses offered by the university and the curriculum. This information is shared through the university's website.

### **LESSONS FROM INTERNATIONAL CASE STUDIES**

The first lesson learnt from the application of the international case studies is the virtual organisations in the case of the Zealand Harbour Information System. This is a highly formalized electronic network, facilitating the availability of information and coordination of different tasks and responsibilities in public and private organisations to make effective service delivery. Before the introduction of this system, communication on unloading and departure of ships was a problem, but now there is a better system of handling administrative and logistics tasks, routines and procedures (Bekkers, 2003). In relation to the university, the contacts between students and university and other stakeholders are through the university web, which provides all information concerning the university, but the problem is the direct question and feedback provision, which is still missing in the web service. In terms of availability of information, reports are still done manually because internally, the internet service is not reliable and not everyone can access the internet; but externally, it is done electronically and the clients can download the application forms and reports through the university websites. Therefore the concept of virtual organisation is practiced at the university, but the challenges of poor infrastructure, especially in the back offices, are limiting it. The university need to improve the infrastructure of ICT and include all the information in the website.

### **LESSON OF APPLICATION FROM THE SUPER PILOT'S PROJECT IN THE NETHERLANDS**

Super pilots are a project used by the central government to accelerate service delivery through electronic means. In Dutch government, the use of internet for communication and transaction for its citizens would make 24 h service delivery possible. Thus, the government applied this project to connect the webs of the government and local service delivery to the back office. Also, they used the first local authority to achieve breakthrough because the local authorities were similar (Thaens, 2006).

The concept of the super pilot projects in the university is applied through ensuring electronic service delivery to clients, particularly to the students, for example new results of examination and applications for admission into

the university are available in the web. On the part of external stakeholders, the university ensure electronic means, for example the university has collaboration with Groningen University in Netherlands and Kenyatta University in Nairobi. However, transactions in these universities are handled electronically. Therefore, the electronic service delivery is on the move, although the challenge the university is facing is the limited infrastructure which needs to be improved.

### **INTERNATIONAL WEB AND APPLICATION AS ANOTHER LESSON FOR APPLICATION**

The case of Boston, for example in the city's marketing, shows the information available and the things to do in Boston. As regards transparency, it shows press release, budgeting and council meeting, whereas in participation, there is information about suggestion, complains and response from the government. However, in advocacy, there is active involvement of citizens, payment and online registration for business communities. In Newcastle, in the city's marketing, there is vision, maps of the city, tourism information and transparency, and also, there is information about the city's plan, policies and council meeting. In participation, there is information about suggestion, sharing ideas and comments, and contact details for contacting persons. In advocacy, there is support in housing, energy and advice information. Lastly, in e-service, there are jobs online, internet meeting and accommodation.

In Mzumbe University, e-service is available through online application, examination results and distance learning; whereas, in terms of transparency, information about the university activities, such as training, research and consultancy are also available. As regards participation, the university council meetings are also available, but there is a limitation on participation. Therefore, strategies of e-governance from these cities can be adopted and used to improve local situations, but limited infrastructure is a problem encountered by the university, in that the information required has to do more with academics.

### **Conclusion**

E-government can be developed through different strategies, for example it can be from the front side of the service delivery or the website through decision making processes, transaction processes or the information architecture (Thaens, 2006).

Normally there are different options to start with such as back office, front office and pragmatic approach. These options may involve the following activities:

1. Assigning responsibilities and setting up a clear management structure.

2. Creating an inventory of the organization's broad initiatives and developing a vision of the organization.
3. Making development of services and products.
4. Improving conditions, such as infrastructure, databases, legal issues and organizational willpower (Thaens, 2009).

In Mzumbe University for example, the best option now is to start with the back office because there is no sufficient ICT infrastructure at the internal environment of the university.

Despite the enactment of the communication and broadcasting act of 1993, which allowed the operation of radio, television and cellular phones with certain regulations, an enactment was still made for the Telecommunication policy of 1997 and abolishment of taxes on purchasing of infrastructure in the financial year of 2001/2002 (Mujwahuzi, 2003). ICT, at the university's back office, is still facing limitation of modern and reliable infrastructure. Information needs is still a problem in different levels because the electronic means of transferring information is of low speed, and the virtual organisation concept, as an international experience for example does not apply well to local situations because of limited means of information sharing.

### **RECOMMENDATIONS**

1. There is a need for more reliable internet service. The current internet service is of very low speed and sometimes it goes off. This becomes a serious problem, especially when communicating the agent information required for teaching or guiding students. Therefore, the university should give priority to improvement of internet services at the back office, and in general, ICT infrastructure should be improved.
2. Direct asking of questions and providing feedback, which is still missing in the web service, should be included. This will make different stakeholders, like students and candidates applying for different posts, get the information they seek quickly.
3. Availability of information and reports should be done electronically to make it easy for all stakeholders to get information.
4. Modern and reliable infrastructure should be in place to improve the access of information by different stakeholders.

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