TOWARDS A MANAGEMENT INFORMATION SYSTEM FOR PUBLIC ADMINISTRATION IN UGANDA

BY

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DECLARATION

I declare that this study Towards Management Information System in Public Administration in Uganda, except where specifically indicated to the contrary in the text, is my own work both in conception and execution. All the information that was used have been and duly acknowledged in the text and in the references

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DEDICATION

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LIST OF ACRONYMS

AI: Artificial Intelligence
ANN: Artificial Neural Network
CBO: Community Based Organisation
CCA: Clinger-Cohen Act
CD-ROM: Compact Disc Read Only Memory
CIO: Chief Information Officer
COMESA: Common Market for Eastern and Southern Africa
CSRP: Civil Service Reform Program
DSC: District Service Commission
DSS: Decision Support System
EASLIS: East African School of Library and Information Science
ECOWAS: Economic Community of West Africa
E-Government: Electronic Government
EIS: Executive Information System
FAO: Food and Agricultural Organisation
GDSS: Group Decision Support System
GNP: Gross National Product
HMIS: Health Management Information System
IAC: Information Analysis and Consolidation
ICT: Information and Communication Technology
IFMS: Integrated Financial Management System
ITIU: Industrial and Technological Information Unit
IRS: Information Reporting System
ISN: Information Sharing Network
JIS: Judicial Information System
KCC: Kampala City Council
KOL: Knowledge On-line
LAN: Local Area Network
LC: Local Council
LOGICS: Local Government Information and Communication System
MFPED: Ministry of Finance Planning and Economic Development
MOH: Ministry of Health
MPS: Ministry of Public Service
MWHC: Ministry of Works Housing and Communication
MIS: Management Information System
MISR: Makerere Institute of Social Research
MOB: Management by Objective
NASPAA: National Association of Schools of Public Affairs and Administration
NGO: Non-Governmental Organisation
NIE: New Institutional Economics
NPM: New Public Management
NPR: National Performance Review
NRM: National Resistance Movement
OAS: Office Automation System
OLAP: Online Analytical Processing
PAC: Public Accounts Committee
PEAP: Poverty Eradication Action Programme
PC: Personal Computer
PCS: Process Control System
POSDCORB: Planning, Organising, Staffing, Directing, Coordinating, Reporting and Budgeting
PSC: Public Service Commission
PSRRC: Public Service Reform and Reorganisation Program
ROM: Result Oriented Management
RSDC: Road Sector Development Program
SAP: Structural Adjustment Program
SADC: Southern African Development Community
SDI: Selective Dissemination of Information
TPS: Transaction Processing System
TQM: Total Quality Management
UBOS: Uganda Bureau of Statistics
UMFPED: Uganda, Ministry of Finance Planning and Economic Development
UMA: Uganda Manufacturers Association
UMACIS: Uganda Manufacturers Association Consultancy and Information Service
UMH: Uganda, Ministry of Health
UMLG: Uganda, Ministry of Local Government
UMPS: Uganda, Ministry of Public Service
UMWHC: Uganda, Ministry of Works Housing and Communication
UNCC: Uganda National Chamber of Commerce
UPS: Uninterrupted Power Supply
UTIS: Uganda Technical Information Service
WK: Workstation
WWW: World Wide Web
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GLOSSARY

Archives: semi-active literature, or literature not likely to be on demand regularly

Artificial Intelligence: a system designed to enable a computer to reason like humans during decision making

Automated Information Systems: An information system based on use of computers and computer related technologies, such as photocopiers and fax machines.

Centralised database: databases of an organization located at one site and under the management of one group of people.

Communication Network: a group of devices connected to one or more communication channels.

Computer-based Information System: an information system specifically designed to run on computers.

Database Management System: A collection of software programs, that stores data in a uniform and consistent way; organize the data in a uniform and consistent way; and allows access to the data in a uniform and consistent way.

Decision Support Systems: an information system established to support decision making at tactical levels of management

Electronic Government: government, whose activities that take place by digital processes over a computer network, usually the internet, between the government and members of the public, and entities of the private sector, especially regulated entities.

End-user: people who use an information system or the information it produces

Executive Information System: information system designed to meet the information needs of top-level management, consisting of graphics, charts and tables.

Expert Systems: an information system designed to enable a computer to reason like humans when dealing with a problem with several dimensions

Gray literature: literature published by organization not fully in the business of publishing.
**External Environment:** factors that are alien to an organization but which are able to influence changes in that organization which may be positive or negative

**Fuzzy Logic:** logically consistent ways of reasoning that can cope with uncertain or partial information characteristic of human thinking and many expert systems.

**Group Decision Support Systems:** a computer based information system where several people working in isolation are able to participate as a team in a discussion

**Informal Information System:** flow of information depending on the word of mouth

**Information proficiency:** having a more than average understanding of the importance of data and information and how it may be managed properly

**Information Repackaging:** presenting data in a format that makes it easier to use

**Information Reporting System:** a computer-based information system established to keep management abreast of the changes taking place in the external environment

**Information System:** a system that converts data into information.

**Internet:** a global network of hundreds of thousands of local networks.

**Knowledge Base:** a collection of databases constructed to support the information needs of a given user group

**Knowledge management:** a system for management of the expertise in an organization; i.e., collecting categorizing and disseminating knowledge.

**Manual Information System:** an information system that operates without the support of computer technology.

**MIS infrastructure:** the external environment impacting on the working of an MIS system, i.e., government policies, the economy, etc.

**Reference literature:** abstracts, handbooks, directories, catalogues and other materials that can be used as primary data to supplement interviews and field observation

**Phenomenon:** the central ideas, event, happenings, incidents about which a set of actions or interactions are directed at managing, handling, or to which a set of actions are related
Primary data: data presented in a form in which it was officially published by its originator

Public Administration: institutions involved in rendering service to the general population, and whose remuneration is drawn from the national treasury

Qualitative Research: research method based on collecting data through critical interviews and observation

Quantitative Research: a research method based on establishing quantities in the changes of a given environment, which are used to derive inferences

Technical Literature: Reports of research, studies, and theoretical, and philosophical papers, characteristics of professional and disciplinary writing

Teleconferencing: or electronic conferencing: systems that permit many participants to engage in two-way communications without having to travel to a common site.

Theory: a collection of assumptions, definitions and propositions which explain a group of observed facts or phenomena in a field or discipline

Transaction Processing System: system that processes organizations routine or basic transactions such as ordering billing and paying.
ABSTRACT

A study based in Uganda, examining and evaluating the theoretical and practical challenges in establishing a management information system (MIS) for public administration. The study focused on the information system at the Ministry of Health (MOH), and Ministry of Finance Planning and Economic Development (MFPED) in the case of Central Government; and that of local administration of five districts, namely, Arua, Bushenyi, Kampala, Masaka, and Mbale.

The study involved administration of a survey questionnaire to 530 respondents as well as conducting face to face interviews with 53 respondents. This was on top of the review of the literature that included journal publications, monographs, institutional reports, and conference proceedings. Data collected was analysed using SPSS, Excel, and Epinfo software programs and was later interpreted accordingly.

The findings of the study reveal that introduction of new public management, in particular, result oriented management trigger off the desire for the introduction of MIS public administration. Initial efforts towards MIS in public administration proved faulty due to lack of coordination. The effort also resulted in MIS programmes which are limited in scope as they are designed mainly for planning purposes. The steps towards review of the MIS program in 2002 aimed at establishing an integrated MIS program. The leading information needs of public administration were identified as financial management, capacity building, national policy, central government policy, economic conditions and HIV/AIDS. Despite the claim of having an MIS, the information system in place is said to be considerably lacking in the ability to supply adequate, well processed, timely, and easy to use data. The system was found to be lacking in the supply of grey literature, and value added data. Websites suffer from inadequate scope and limited currency. In-house databases by the established information system are nonexistent. The system suffers from the lack of a LAN system, meaning non-availability of online access for most people. It also suffers from undeveloped CD-ROM, and flash disk technology, meaning that information from databases is only accessible in printed form.
or on diskettes. The MIS programme also suffers from excessive donor dependence, resulting in the development of incompatible systems. Local governments in particular suffer from inadequate computer stock. Public administration, as a whole, suffers from inadequate computer accessories, a problem aggravated by lack of a LAN system to support resource sharing. It also suffers from inadequate computer literacy by both information resource personnel, and public administrators which then results in the under-utilisation of computer resources. To most respondents, the productivity of the MIS program is less that 30 percent of its potential.

There is a need to; a) strengthen training in information management, including information gathering, knowledge management, indexing and abstracting service, information analysis and consolidation, and information repackaging; b) establish sectoral information analysis centres with legal deposit rights on government and non-government publications, to assume management of the national websites and online databases; c) create a Ministry of Information and Communication Technology to elevate the information resource to a ministerial status; d) effect greater investment in group decision support systems as opposed to decision support systems; e) invest in information sharing networks as opposed executive information systems; f) emphasise information reporting and communication as opposed to production of decision models; g) increase government active participation in MIS programs demonstrated through independent budget lines in the national budget and lastly there is a need to integrate the various information systems into a public administration management information network (PAMIN).

In conclusion, MIS for public administration is the only way to activate the critical role of information in public administration. Bearing in mind that MIS is computer based, and that the ICT industry is ever changing, the Uganda Government is faced with an uphill task of making MIS a success.
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