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Utilization of Information Systems in Managerial Decision Making in Financial Institutions

F. O. Sangowusi

Information technology (IT) is rapidly proliferating throughout the developing world. IT adoption for decision making is highly uneven in different organizations. The discussions in this paper explain what Information Technology (IT) and Management Information Systems (MIS) mean and how both can benefit decision makers in financial institutions. However, the information that managers sometimes receive are often out of date and irrelevant to their needs. The information requirements of managers and the type of information systems necessary for decision making were also discussed. It is therefore important that financial managers must have a good knowledge of current computer technologies

INTRODUCTION

The universal acknowledgement by industrialized nations that information is a national resource vital for decision-making, and that information technology is a power tool in process of socio-economic development of nations has helped developing countries to recognize importance of information technology. Various types of decision makers in developing countries seeking to obtain relevant and timely information include; biological, technical and social science researchers; extension agents; teachers; marketing and business firms operators, managers; farmers; administrators; planners and policy makers. On a daily basis a manager has to make many decisions. The types of decisions being made by different levels of managers may be quite different, but all decision makers attempt to bring about a more productive and socially beneficial economic system to their organizations. Their decisions are affected by quality and timeliness of supporting information available to them. In other words, given a set of possible decisions, a manager will act on basis of information at hand. Some of these decisions are routinely inconsequential, while others have drastic impacts on operations of the firm for which they work. Some of the decisions could involve large sums of money being gained or lost and whether or not the firm accomplishes its mission and its goals.

However, as postulated by **Huber (1990)**, "... the use of information technology will lead to higher quality decisions, to a reduction in time required to authorize proposed organization actions, and the time required to make decisions will be reduced..." The quality of any management decision suffers each time appropriate information is lacking. However, given the right information in the right form and at the right time to meet needs of users has always been considered as an

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important objective in information systems development and management (**Etsua-Mensah:1996**). The wave of automation in the corporate environment has been designed to rationalize performance and improve efficiency.

Although information systems are considered to belong to an applied discipline, there is need for an understanding of the underlining basic concepts by information practitioners. However, the definition of information concepts by **Duff and Assad (1980)** will be considered for the purpose of this study. They define information systems as a "... collection of people, procedures, a data of (sometimes) hardware and software that collects, processes, stores and communicates data for transaction processing at operational level and information to support management decision making...". In other to understand the information system concept further, **Salton (1975)** highlighted the most important computer-based information systems as follows:

- * Information Retrieval System (IR)
- * Question-answering System
- * Database System (DBS)
- * Management Information System (MIS)
- * Decision Support System (DSS)

Information systems also help upper level managers chart a course through the constantly changing business environment of the firm. Industrial firms, service companies and financial institutions in market economies rely on these systems extensively: without them modern market economies will not exist in their present form. Therefore, design of computer-based systems to support decision making is inspired by the notion that information of good quality, both in content and presentation is essential for good decisions.

In our increasingly complex world, tasks of decision-maker must respond quickly to events that seem to take place at an ever-increasing pace. However, different types of data are needed to support different aspects of managerial decision-making. A manager is frequently concerned with problem finding that is to determine if a problem exists and to solve it. This means that obtaining adequate and valid information is essential, as the success of the business depends to a large extent on the ability of the management to make good and viable decisions.

The aim of this study is not only to reveal unexploited opportunities of Information Technology in managerial decision making but also to be used for guiding strategy building process of organizations. Knowing the needs in information technology development will also point out evolving characteristics of society for which appropriate information professionals must be produced.

WHAT IS INFORMATION TECHNOLOGY

Information Technology (IT) is one of the many tools available to managers for coping with changes. The potential benefits that an organization can obtain when it utilizes IT are extensive. These benefits according to **Fink (1998)** can take a number of forms, such as efficiency gains (the automation of clerical procedure), increase management of effectiveness (decision making) and improved business performance (entering into strategic alliances with other firms). Information Technology has been defined as the various technologies which are used in the creation, acquisition, storage, dissemination, retrieval, manipulation and transmission of information (**Moll; 1983**). While **Huber (1990)** defines "...IT as devices that transmit, manipulate, analyse, or exploit information and in which a digital computer process information integral to the user's communication or decision task...". **Entsue-Mensah (1996)** also refers to IT as the collection of machinery that enhances communication with people and processes and between organizations and nations.

Instances of IT are E-mail, electronic bulletin boards, electronic file transfer, shared electronic databases, teleconferencing, view data, telex, expert system, video conferencing, the facsimile (fax), voice mail and the telephone (the telephone is been used for application in computer telephone integration) (**Travica:1998, Oyebisi:2000**). Information technology has facilitated integration of business functions in all levels within and between organizations. They also continue to present new strategic opportunities for the organization that are willing and able to step back and reassess their mission and operation.

Types of Information Systems Necessary for Decision Making

The business world is becoming more computer and information intensive because the information environment of a given organization currently revolves around the ability to use and manipulate information technologies. **Alter (1999)** in his study listed out roles of different types of information system used for decision-making which include the following:

Office Automatic System (OAS)

These systems include a wide range of tools such as spreadsheets, word processing and presentation packages. Telephone, e-mal, voice mail, and fax can be included in this category. OASs help people perform personal record keeping, writing and calculations efficiently.

Electronic Communication

This system helps people work together by exchanging or sharing information in different forms. These include teleconferencing, messaging systems, intranet and extranets.

Transaction Processing System (TPS)

This collects and stores information about transactions, controls some aspects of transaction.

Management Information System and Executive Information System (MIS) and EIS

This converts TPS data into information for monitoring performance and managing an organization, provides executive information in a readily accessible interactive format.

Decision Support System (DSS)

It helps people make decision by providing information model, or analysis tools.

Executive System

Directly supports organizations value added world. Therefore, to improve the quality of decisions, a system designer can seek to improve the information input or to change the decision process. MIS that provides real time, accurate easily accessible information helps the executive to make decision quicker. However, information-systems, which are developed specifically for strategic management, have been playing a unique role to assist decision-making. The advantages of IT for decision making as listed by **Moss-Jones (1990)** are:

- * Managers' perception of greater data quality, problems priority and relevance
- * Increasing transaction processing incorporates some decisions in programs
- * Increasing perception of decision complexity.
- * Increasing data structure priority-increase pace
- * Increased needs for goals/objective structure
- * Integrations of subsystem allow automation verification of some decision data.
- * Movement towards "real" time
- * Reduced data redundancy and clearer data

In other words, information technology also plays an important role in facilitating resource sharing among organizations (**Miranda, 1994**) further explains that a concomitant increase in the volume of transactions relating to database access and recovery of document will occur in organizations because of the influence of IT. He also listed some of the relationship of these transactions to database access, which include the following:

- * request via electronic mail (Bitnet / Internet)
- * request on-line
- * scanning documents
- * system of electronic payments, adjusted to data transfusion
- * price differentiation for different products.

However, approaching information systems in an organizational content shows that it is a sub-system within an organizational systems which is a "living and open" system.

INFORMATION TECHNOLOGY IN THE DECISION-MAKING PROCESS

Universally managers are regarded as the key to the fortunes of their organizations; thus their development is crucial for organizational success. Effective management development as **Moss-Jones (1990)** pointed out hinges on understanding the actual work and contexts of the manager, and these are likely to be increasingly affected by information technology. Although good managers do more than make good decisions, "a broad view of decision making process provides a useful starting point from which to understand what group and organizations must do" as **Sampler (1996)** clearly stated.

Information technology (IT) will provide managers with the tools to make solid decision. This decision, according to **Forcht (1987)**, includes business decisions, analysis of complex financial transactions, monitoring business markets and developing a variety of ways to improve their business. It is therefore necessary that information system professionals must be aware of top management objectives and the strategic directions of their firms. For example, information technology in the banking sector traditionally focuses in meeting operational needs such as printing monthly statement and check processing. But in recent years there have been an increased emphasis on meeting decisions support and strategic information needs for example automation portfolio management, report generation for regulatory requirement, and merger of customer account bases (**Ravicandran and Banerjee: 1994**).

Decision-making is based on information and information is the trigger to know if there is a problem. This information, according to **Lucey (1995)**, is needed to "...define and structure the problem, information is needed to explore and choose between the alternative solutions and information in need to review the effect of the implemented choice...". In his conceptualization of top managers in information processing system, **Mintzberg (1973)** was quoted by **Auster and Choo (1994)**; that manager's interpersonal roles provide access and exposure to information to a large number of external and internal information sources. This indicates that the managers in the informational role of monitoring continually seek and receive information. This information is from a variety of sources in order to develop thorough understanding of the organization and its environment. However, the availability of fast and accurate information is a key component of decision-making. Therefore a MIS that provides real time, accurate and easily accessible information will help the executive to make quicker decisions.

INFORMATION REQUIREMENTS OF MANAGERS

Information need varies from manager to manager and these needs will change with time for a particular manager. This is because the information requirements of management depend heavily on the management level involved. It is therefore necessary to identify the information that is needed by managers in order to operate and manage an organization.

Management information includes not only objective data generated by formal systems, but also information meant to be persuasive such as suggestions, warnings, and detailed proposals. Information is also a vital ingredient in financial managerial decisions. Bank loan officers, for example, use accounting and other information to decide whether to make loans to firms (Iseline: 1996). The main information area (either computerized or not) that is required in making decisions in the financial sector according to Mentzas (1994) areas follows:

Strategic Goals and Plans

It include main strategic goals of the organization, the procedures for attaining the goals, the list of priorities put forth, directing and guides to middle management, information on the banking environment (legal, directives from central bank, analysis, of competitors) etc.

Marketing Information

It includes general information on type of client (both current and prospective), statistics on non-client of the bank, etc.

General Ledger and Liquidity Information

Information regarding the general ledger functions of the bank and data concerning liquidity, management for example, accounts, transactions, balances, etc.

Budget and Forecast

Various types of budgets and reports necessary for budget planning, monitory and financial planning.

Interbank and Interbranch Information

Information necessary for Interbank and Interbranch clearing and settlement-lending interest rates, information on correspondents accounts etc.

Personnel Information

List of current, personnel and their employment characteristics, information on wages and salaries, information on career planning issues regulations concerning social security etc.

Administrative and Support Information

For various technical services, the management of physical security, the technical projects carried out, the management of fix assets, the management of IT-

related services, policies and procedures for internal audit and control.

Client Information: Information on the organization's clients.

Client Account: All the account of the organization's clients in case such exist.

Clients' Transactions: All transactions carried out for the organization's clients.

Clients' Contracts

The contracts of clients with the organization's-contracts, deposit contracts, contracts for foreign trade, contracts for securities, etc.

The Organization's Products Features

The features of the organization's products are given here, that is, information types of deposits, types of loans, interest rates available, exchange rates etc. The quality of decision-making is determined by availability and use of appropriate data for decision-makers whose training and experience qualify them to provide organization leadership.

MANAGEMENT INFORMATION SYSTEMS (MIS) IN ORGANIZATIONS

A manager should plan activities of his or her organization, organize its personnel and their activities, direct its operations, and control its direction by evaluating feedback and making necessary adjustments. Information systems therefore assist managers by providing information needed to accomplish each of these managerial functions. Management Information System (MIS) are concerned with the information flow associated with decision-making and it handles information from different sources.

However, computer - based information systems are becoming more persuasive in organizations: automating mundane tasks and aiding decision making. **Byun and Sub (1999)** refer to MIS in an organization as a "...computer-base system specifically designed to meeting the need of top executives of an organization and to eliminate the need of intermediaries...". Manager therefore depend on MIS capabilities as monitoring system that draws information form MIS databases and external sources.

As a matter of fact MIS is a special-purpose system useful for management in an organization. This is an accessible and rapid conveyor belt for appropriate high quality information from its generation to users (**Adekeye: 1997**). However, efficient performance of an organization resources. Moreover, processing of data into information and communicating resulting information to the user is the very essence of MIS. According to **Laudon (1999)**, MIS serve the management level of the organization providing managers with reports and in some cases on-line access to the organization current performance and historical records. These have become a central component in organizations to meet information needs of management and

decision support system have provided tremendous analytic tool for middle management. When a business event occurs for example whether it is the issuing of an invoice, the ticking over into a new financial quarter or staff attendance at a training course this event provides the raw material for the bank's MIS (Robson 1997). This means they may record and model all or part of the organization's activities and provide indicators of any actual or predicted change in the state of the organization. Therefore management information systems should focus on providing managers with prespecified information products that report on the performance of the organization.

CONCLUSION AND RECOMMENDATION

From both application and research perspectives the impact of information technology (IT) on managerial decision-making is an important issue. Information Technology is a general expression covering computers, telecommunications and electronics and there is no doubt that IT is having a profound influence on all aspects of life, including organizations and management information systems. The mere possession of technology no longer confers any special advantage on the status on any organization. What distinguishes a leading organization from a laggard one is the way and speed with which the technology is applied to deliver quality decisions and superior customer service. The rapid growth of technology and dramatically falling cost of computing capability mean that more and more aspects of managerial planning and decision-making can be assisted by information technology provided (Lucey, 1995). It is important that managers must have a good knowledge of current computing technologies. For every managerial decisions there are several possible solutions; therefore good decisions should be based on considering all solutions and choosing the ones that fit the operation.

The CNN advert that ends with "*Your are nothing without information*" is perhaps most appropriate for Nigerian managers. It is true that symptoms of corporate failures remain hidden for years in several organizations due to adequate use of information technology. In Nigeria, computerization has been limited to mostly financial reports that is accounting which is just a small fraction of management information with any company (Okolo:2001).

However, there is a need to install effective MIS systems that will help with prompt information retrieval and aid effective management of their organizations. This is an important requirement to keep a tab on offshore offices and branches. Therefore, information specialists need to know what type of tasks and functions management have to perform so that they are able to produce relevant and usable information. In conclusion, there is a pressing need to have a thorough reorientation on the perception, dissemination, utilization and management of information in Nigerian. From our discussion so far, it is clear how important is defining what

information is needed for decision-making. With the use of recommendations made in this study, bankers, financial analysts, and all other decision makers can effectively identify, evaluate, understand, communicate and manage business uncertainties and risk as a result of information generated from a well organized MIS.

REFERENCES

- Adeoti-Adekeye, W. B. (1997). "The Importance of Management Information Systems" *Library Review*. Vol. 46 (5) pp. 318-327.
- Alter, S. (1999). *Information Systems: A Management Perspective*. 3rd Edition Massachusetts: Addison Wesley Longman.
- Auster, E. and Choo, C. W. (1994). "How Senior Managers Acquire and Use Information in Environmental Scanning". *Information Processing and Management*. Vol. 30(5), pp. 607-618.
- Duff, W. M. and Assad, M. C. (1980). "Information Management: An Executive Approach" Oxford University Press, London, P243.
- Entua-Mensah, C. (1996). "Towards Effective Information Management: A View from Ghana". *International Journal of Information Management*. Vol. 16(2) pp. 147-156.
- Fink, D. (1998). "Guidelines for the Successful Adoption of Information Technology in Small and Medium Enterprise". *International Journal of Information Science*. Vol. 18 (4) pp. 243-253.
- Forcht, K. A. et al (1987) "Emerging Roles of the MIS Professional: Techno-verent or Change Agent". *Journal of Systems Management*. Vol. 38 (11) pp. 10-19.
- Huber, G. P. (1990). "Theory of the Effects of Advanced Information Technology on Organizational Design, Intelligence and Decision-Making" *Academy of Management Review* Vol. 15 (1) pp. 47-71.
- Iseline, E. R. (1996). "Accounting Information and the Quality Financial Managerial Decisions". *Journal of Information Science* Vol. 22(2) pp. 147-153.
- Laudon, K. C. and Laudon, J. P. (1999). *Essential of MISs: Transforming Business and Management*. 3rd Edition, New Jersey Prentice Hall.
- Lucey, T. (1995). *Management Information Systems*. 7th Edition, London:DP Publications Limited.
- Mentzas, G. (1994). "Information Systems Strategy for Electronic Banking: the Case of Countries in Reform". *International Journal of Information Management*. Vol. 14(3) pp. 159-175.
- Miranda, A. (1994). "New Technology and Access to Producing Document. A Prospective View". *Information Development*. Vol. 10(4) pp. 37 - 48.

- Moll, P. (1983). "Should the Third World have Information Technologies?" *IFLA Journal* Vol. 9 No. 4 pp. 297.
- Moss-Jones, J. (1990). *Automating Managers: The Implication for IT for Manager*. London: Printer Publishes.
- O'Brien, J. A. (1996). *Management Information Systems*. Boston, Irwin McGraw Hill.
- Okolo, C. H. (2001). "Cooperate Restructuring in a Transitional Economy". NESG Economic Indicators. pp. 63-66.
- Oyebisi, T. O. *et al.* (2000). "The Assimilation of Information Technology in Selected Banks and Insurance Firms in Nigeria" *Nigerian Financial Review*. Vol. 9, No. 1 pp. 57-69
- Ravichandran, R. and Banerjee, H. (1994). "Support for Information Systems Usage in Banks". *International Journal of Information Management*. Vol. 14 (1) pp. 5-12.
- Robson, W. (1997). *Strategic Management and Information Systems*. 2nd ed. London: Financial Times Management.
- Salton, G. (1975). *Dynamic Information and Library Processing*. Prentice -Hall International London, p. 523.
- Sampller, J. L. (1996). Exploring the Relationship Between Information Technology and Organizational Structure". In: *Information Management* Edited by M. J. Earl. New York: Oxford University Press.
- Travica, B. (1998). "Information Aspects of New Organizational Designs: Exploring the Non - Traditional Organization". *Journal of American Society for Information Science*. Vol. 49(13) pp. 1225-1226.