ORGANIZATION AS A SYSTEM AND APPLICATION OF MANAGEMENT INFORMATION SYSTEM FOR ITS SURVIVAL

OGONU, Omoni Gibson & ABRUIME, Frank Ehikoya

Department of Business Education,
School of Secondary Education (Business)
Federal College of Education (Technical), Omoku,Rivers State , Nigeria
Corresponding Email : frankaburime@gmail.com

Abstract

Organization is one of the most commonly used term when it comes to arrangement of human and works towards the attainment of goal. It is for this reason that organization is viewed both as a function and as an entity. Nevertheless, from whatever perspective organization is viewed, it encompasses the harmonious working of interrelated units, parts or departments. With this view in mind, it can be seen as a system made up of sub-systems. Each sub-system is established to carry out specialized functions contributing to the overall goal of the organization. The specialized functions include but not limited to accounting, marketing, production, human resources management and others. To effectively contribute to the goal of the organization managers at different levels need accurate, reliable and timely information, this can only be ensured through the design and establishment of effective Management Information System (MIS). Consequently, this paper is designed to examine the application of MIS for the survival of an organization. To achieve this, the paper researched various literatures on the concept of organization, organization as a system, MIS and the application of MIS in an organization for its survival. Based on the literature reviewed, it was concluded that without effective MIS, organizations are likely going to face chaos rather than achieve their goals because it supports the information needed for effective management decision. It was therefore, suggested that organization should endeavour to design and deploy effective MIS for its functional areas.
Keywords: *Organization, Information Technology and Survival, Sub-system,*

Introduction

The integration of human and material resources within establishments always call for organization and creation of structures capable of driving harmonious working conditions towards the attainment of predetermined objectives. It is for this reason that the concept of organization is viewed from two perspectives as a function and as an entity. According to Ventatesh (2021), organization as a function is the process of identifying and classifying works to be carried out, defining and delegating responsibility and authority and establishing relationships for the purpose of enabling people to work together in the best effective means of attaining predetermined objectives/goals. According to Surbhi (2017) it is an entity noted that it can be a company, an institution, an association or a business enterprise established for a particular purpose. Notwithstanding, the two perspectives from which an organization is viewed, it is important to note that whether as a function or as an entity, organization

Cite this article as

Ogonu, O. G., & Abruime, F. E. (2020). Organization As A System And Application Of Management Information System For Its Survival. *THE COLLOQUIUM*, 8(1), 130-139

is made up of many parts resulting from the arrangement of works to be done in order to attain predetermined objectives. Consequently, every organization is a system in its nature.

Every system is made up of several parts working together towards the attainment of stated objectives. It is for this reason that Zurich (2021) defined a system as several components working harmoniously to achieve a task, where if a component is taken away or changed, it affects the functionality of the whole. This means that in isolation, the component parts may not achieve the much expected goal, but rather an objective which cannot be rated as desired outcome. Evidently, systems exist in different forms; such as physical, biological, and social in context. These can be found in such areas as in the braking system in a vehicle, the nervous system in the human body, and a customer relations department in a business organization (Greenberg, 2011). According to Zed (2021), organizations and their components are usefully conceptualized as social system designed to attain predetermined goals and objectives through people using other resources employed. It consists of smaller interrelated systems (departments, units, divisions, etc.) serving specialized functions. Typical tasks of the various units in an organization include accounting, marketing, production, data processing, and management. These tasks making up smaller systems are eventually reintegrated through various ways to form an effective organizational whole. Using the system principle therefore, the functioning of organization as an entity comprising of several parts is properly comprehended. Reich and Hershcovis (2011) noted that for one to understand the working of an organization and designed the way information should flow properly, it is of importance to view the organization as a system. Reich and Hershcovis (2011) further noted that this is because every system is composed of sub-systems working and generating vital information for the continuous survival and progress of the whole.

Information generated from the various sub-systems in an organization is considered vital to its survival. Consequently, every organization must design and implement good information management process in order to meet its information need as at when due. The process of managing information in the 21stcentury is dynamic. It changes as the information need of the information changes (Mehdi &Jafar, 2013). Vendel (2017) noted that effective management of information is needed in every organization in order to ensure optimum utilization of available information through efficient sharing by giving every member of the organization who needs access to it as at when needed. This means that to achieve results in every organization, proper information management system must be put in place especially in order to enhance management decisions at all levels. Therefore, bearing this in mind, Management Information System (MIS) is established in most organization to avoid issues of information duplication and utilization of irrelevant information for decision making purposes. In view of the importance of MIS, in this paper, the role of MIS to the survival of organization as a system is considered.

Conceptual frame work
Organization
An organization is an entity comprising one or more people working towards the achievement of common goals. An organization can also be a company, an institution, an association or a business enterprise set up for a particular purpose. Surbhi (2017), describes it as collection of people, who are involved in pursuing defined objective. In another way, organization can be referred to as a social system because they are made up of human beings engaged in formal relationship towards the attainment of specific objectives or goals.According to Vocabulary Dictionary (2021), it is a group of people who work together, like a neighbourhood association, a charity, a union, or a corporation. Organization also can be seen as the act of or establishing something (such as an enterprise). It can also be referred to as a system of arranging works or a structure for classifying things. Ventatesh

(2021) opined that organization is the process of recognizing and categorizing works to be done, defining and delegating responsibility and authority, and establishing relationships for the purpose of enabling people to work most effectively together in accomplishing objectives. Organizations of people come in several forms. The organizations might be a random group of people who suddenly came together to address a short-term need, such as collecting litter along a certain stretch of road. In other words, organization might be a meticulously collected, aligned and integrated group of persons who came together for the long-term to address a long-term need, such as stopping poverty in a certain country. Priyakshi (2021), sees it as an establishment of authority relationship among persons so that it can help in the achievement of predetermined objectives.

Ventatesh (2021) highlighted characteristics of organization as follows:

1. **Division of Work**: Organization as a system deals with the whole task of business. The entire work of the enterprise is classified into activities and functions. Various activities are assigned to different persons for their efficient accomplishment. This brings in division of labour. It is not that one person cannot carry out many functions but specialization in different activities is necessary to improve one's efficiency. Organization helps in dividing the work into related activities so that they are assigned to different individuals.

2. **Co-Ordination**: Co-ordination of series of activities is as imperative as their division. It helps in integrating and harmonizing various activities. Co-ordination also avoids duplications and delays. In fact, various functions in an organization depend upon one another and the performance of one influences the other. Unless all of them are properly coordinated, the performance of all segments is adversely affected.

3. **Common Objectives**: All organizations aim towards the achievement of the organizational goals. The goals of various segments lead to the achievement of major business goals. The organizational structure should build around common and clear cut objectives. This will help in their proper accomplishment.

4. **Co-operative Relationship**: An organization creates co-operative relationship among various units or components of the organization. A unit or person cannot be said to constitute an organization, but the least required number is two. It requires at least two or more persons. It is a system which helps in creating meaningful relationship between/among persons. The relationship between should be both vertical and horizontal among members of various departments. The structure should be constructed in a way to motivate people to perform their part of work together.

5. **Well-Defined Authority-Responsibility Relationship**: An organization is made up of various positions designed in a hierarchy with well defined authority and responsibility. There is always main authority from which a chain of authority relationship stretches throughout the organization. The hierarchy of positions defines the lines of communication and pattern of relationship.

Organization as a System

Generally, a system is made of several components that work together in order to attain specific objective. According to Gharaibeeh and Malkawi (2013) a system is group of components that interact together to achieve some purpose. Zurich (2021) defined a system as several components working in unity to achieve a task, where if a component is taken away or changed, it affects the functionality of the whole. According to Zed (2021), organizations and their components are usefully conceptualized as systems designed to attain predetermined goals and objectives through human and other resources that they engaged. Organizations are made up of smaller, interrelated system (departments, units, divisions, etc.) serving expertise functions. The relevance of conceptualizing

Cite this article as

organizations as complex systems is that system's norms give a better understanding of how organization works. All systems are composed of sub-systems, therefore applying this to organization means there are smaller systems within which mutually depend on each other to attain the goal for which they were established (Reich & Hershcovis, 2011). Systems theory is synonymous with enterprise to an organization which each unit relying on one another though having its own particular activities to perform.

According to Levinson (2018), organization as a system defines structural setup established to ensure the effective workings of the entire establishment. It is for this reason that Schumpeter (2011) stated that all organizations have composition that determines relationships between the distinctive activities and the units, and subdivides and assigns decision rights-roles, responsibilities, and authority to carry out different tasks. Martocchio (2011) opined that the elements that form the organization's system are:

1. **Purpose**: Every organization has a purpose and this is the brain behind its establishment, this purpose is usually presented as organizational mission and its objectives that must be accomplished. Goals, though definite and significant, can be a simple statement of a company's culture or attitude. People in that organization must agree to work for the achievement of the set goal of the organization which gives coherence to their motivations, decisions, actions, and behaviour.

2. **Organization Units**: The organization unit classifies a firm's control, people, processes, policies, culture, assets such as applications, and knowledge, and information to show the actualization of the organization's effective strategy. It can be conceptualized as a logical structure representing the people in a business unit, business function, department, bureau, team, group, division, etc. According to Levinson (2018), organizational units can be grouped according to certain features such as responsibilities and obligations of a set of people consisting of the unit.

3. **Position Structure**: This explains the competency realms or personnel abilities organized under organizational units that are decisive in implementing the current and emergent strategy including creating and delivering value to customers. It is patterned to enhance communicant and information flow among members of the organization (people or groups of people) that make up the organization social system.

4. **Positions**: These are posts held by each individual or group of individuals in the various units of an organization based on the required jobs, staff field of study, skill, knowledge and competency. Position is official norms in an organization designed in an order of hierarchy such as high position, middle position and low position. The position specifies who makes decision and who implements the decision, all in a bid to achieve the organization goals.

5. **Role-Responsibilities**: Role is referred to the external expression of the responsibilities and function of a person, group, or organization unit. Adherence to roles lead to social integration, organization and unity in social systems.

6. **Processes**: Process describes the methods or steps any organization adopts in getting work done effectively. That is, the various steps and order in defining the workflow or the way work is being accomplished in an organization. The process may include how to treat raw materials, food etc in order to change or preserve them, to deal officially with a document etc.

7. **Programmes**: Programme is a set of instructions in code that controls the operations or functions of a system. It can also be described as a predetermined plan of things to be done or included in the workflow of an organization.

8. **Interactions and Relationships**: Interaction refers to the way in which each element functions with other components of the system. Interactions between actors can occur to

Cite this article as

Ogonu, O. G., & Abruime, F. E. (2020). Organization As A System And Application Of Management Information System For Its Survival. *THE COLLOQUIUM*, 8(1), 130-139

satisfy goal intentions common to the actors, or global goals, which relate to the organization (or society) as a whole and lay outside the limit of any one individual actor.

9. **Institutional Arrangements**: These refer to the policies, procedures and processes that permit systems to function and interact effectively and efficiently in an organized setting.

10. **Policies and Procedures**: Generally defined, policy refers to actual guidelines, methods, procedures, rules, forms, and administrative practices established to support and encourage work towards stated goals. Policies and procedures help organizations operate to cope with their environment. The reason behind these rules is to allow the organization to make decision using "standard operating procedures" as a guideline and hence make decisions more consistent.

Concept of Management Information System (MIS)

Information is generated by virtually all functional units of an organization and there is need for them to be readily available to support management decisions, hence, Management Information Systems (MIS) are set up for this purpose. According to Kroenke (2011), Management Information Systems (MIS) can be defined as the processes of developing and using information systems to provide needed management information as at when needed for decision making. Jamwal and Singh (2011) defined Management Information Systems (MIS) as an information system that coordinates information from one person to another in the organization in order to organize and provide the staff and management with required information for decision making. Nadeem (2018) opined that Management Information Systems (MIS) is a complex system set up to provide decision support information to managers from all the functional departments within an organization.

According to Anderson (2010), MIS is a people-oriented field which usually emphasis on information provision through innovative approaches using essential tools. Gharaibeeh and Malkawi (2013) defined MIS as a group of information system parts interacting together to produce information needed to facilitate management decision. Gharaibeeh and Malkawi noted that the components in this technological era are computer hardware, software, data, procedures and people. Essentially, the basic need for an electronically driven MIS as against manual in every organization is based on the characteristics of it in providing quality information accurately, timely, sufficiently and with less cost implication. Supporting this, Teo and King (2013) observed that electronic MIS is designed and implemented to replace obsolete manual reporting and information provision frameworks in organizations. Gordon (2016) stated that MIS in modern organization is a detailed computer based system that provides managers with the information to organize and effectively oversee departments within organizations as they interact with the outside world. Abdulkarim (2019) noted that MIS from the broader perspective of an organization covers a wide range of activities that centre on the information need of the organization. Abdulkarim also noted that MIS integrate three types of resources to accomplish its objectives in an organization and these resources are:

1. **Business Resources**: These include: the business or enterprise, its functions, human resources, technological/machine resources, business objective, business projects, operational techniques and strategies, and information required to support operations.

2. **System Resources**: System resources consist of the following: systems, business processes, administrative procedures (manual and automated), computer procedures, programmes, operational steps, subroutines and schedules.

3. **Data Resources**: These are data generated from the different units of a business organization. These data are processed, stored and shared as experiences or information emanating from the different routines of the business. Hence, data resources include: daily routine generated data, stored historical records (financial cost, past experiences, existing customers, past management decisions and others), database content (manually created as well as

electronically maintained), objects of the business, inputs of the business, outputs of the business, standards evaluations, and others.

Application of MIS for Organizational Survival

The establishment of MIS in an organization is to meet its information need and ensure its continuous survival in all functional areas. According to Bakri et al., (2017), MIS is applicable to every aspects of an organization because without timely and accurate information nothing can be achievable other than chaos. Abdulkarim (2019) also noted that the importance of effective MIS either manual or electronic within an organization cannot be overemphasized considering the relevance of information to the overall functioning of the organization. Some of the notable areas where MIS are applied in order to contribute to the survival of organization as a system are:

1. **Support Effective Communication amongst Units**: MIS is used to aid effective communication within and across the various units of an organization. This is because effective MIS gives an organization the ability to share information within and across its units through good networks (Nadeem, 2018). MIS also provides electronic data exchange, interchange and empowers organization to communicate effectively with others within same industry as well as execute transactions across networks without additional cost implication (Mehdi &Jafar, 2013). Everything being equal, organization that cannot communicate effectively without additional using its established MIS is capable of being frustrated in its efforts to capitalize on its information system infrastructure to share resources and perform transactions seamlessly.

2. **Support for Competitive Advantage**: Strategic planning to stand today's intense competition cannot be achieved in the absence of relevant information about competitors' activities. MIS provides an organization with adequate information for planning and taking strategic decision with regards to competitors. Lopez-Nicolas and Soto-Acosta (2010) noted that MIS services are at the core of every long and short term strategic plan aimed at achieving competitive goals in any business organization.Kiniti and Standing (2013) explained that the objectives and goals of MIS is to ensure that organization has meet with its information needed for strategic planning and decision making most especially as concerns the market and competitors.

3. **Support Effective and Efficient Management of Organization Process and Operation**: To effectively manage process and operations in any organization, accurate and timely information are needed by operational managers; Effective MIS provides them with such information. According to Lin (2013), MIS do provide the information needed of clients, which they can use to improve on future procedure and operation in organization. MIS is an enabler, it enables operational managers to have adequate information for appraising performance, hindrances and attainment of daily, weekly and monthly objectives. This enables them to device solutions capable of ensuring effective and efficient organizational operations. Wang (2016) opined that MIS is needed in every organization to provide process and operational managers with service and product related information they can use to improve the current practices and increase productivity. This means that process and operational managers in an organization can rely on the information supplied through the organization without embarking on the voyage of gathering to perform their responsibilities especially if there is an effective networking system connecting the various units of the organization to MIS server and database. Smith and Leidner (2016) noted that MIS improves management operations by providing managers with information on resources utilization which can be used to determine whether there is waste or optimum utilization. In a nutshell,

effective and efficient management of an organization's processes and operations rest on vital information supplied through effective networking system by the MIS to various authorities.

4. **Support Time Provision of Needed Information**: The provision of reliable and accurate information from the massive data generated from the organization's daily routine operations such as: purchase data, production output, personnel punctuality and clients' data are something that requires systematic processing. This is because such data need to be organized, processed, stored and shared as information when required by the stakeholders. According to Johnstone (2017), to effectively organize, store and disseminate information to the users requires planning, establishing proper information management systems and maintaining them from time to time in accordance with the organization's structure. According to Abdulkarim (2019), daily unlimited data organization, processing, storing and sharing as information are not as easy as they sound without quality MIS put in place to ensure easy and quick access when needed and reduce time wastage.

5. **Support Effective Decision Making by Management and Staff**: MIS provides those in the positions of decision making and responsibilities with relevant information in different format that can aid their decision making process. Kiniti and Standing (2013) stated that management and staff are assisting through MIS to design their decision using information generated from data that emanated from the operations in organization. Some MIS within organization help to carryout trend analysis using data generated from different functional areas and provides information as reports to management and staff to enable them understand the current situations and execute changes where necessary in order to drive goal attainment (Leuf & Cunningham, 2011). For instance, MIS provides educational institutions with trend analysis on the students' admission and graduation to enable the management take decision on demand for each programme by the public and what needs to be done to create programme awareness.

In the light of the above application of MIS in an organization, it is not a gainsaying that the continuous survival of any organization will rest upon them. This is due to the fact that they are prerequisites for the continuous functinong and operation of the organization as a system. Consequently, MIS as a system within an organization is required to help enhance the performance of all separate units as a cohesive one.

Conclusion

Based on the discourse so far, it can be concluded that separate units making up an organization can effectively work as a cohesive one if MIS is designed, established and applied across their functions. Also, any organization yet to establish and integrate MIS to cover its functional operation areas such as marketing, accounting, production, human resources management, customer care and sales within would lack the requisite information for proper decision making as at when needed. This is because routine data from all these areas need to be analyzed and used to generate information needed by functional operating managers who are charged with monitoring and ensuring that daily routine objectives are accomplished towards the attainment of the general goal. They also need the information from MIS to enhance future processes and operations for the continuous survival of the organization and increased productivity.

Suggestions to Enhance Application of MIS for Survival of Organization as a System

Based on the discourse so far and the conclusion drawn, the following suggestions are put forward to enhance application of MIS for survival of organization as a system:

i. Organizations should design or deplore effective MIS covering all the functional areas in line with their goals;

ii. Organizations should engage experts with the requisite knowledge and skills required to carry on the basic functions of MIS unit.

iii. Organizations should train their personnel on how to use affordable applied technologies to connect to the MIS server for the purpose of data and information exchange.

iv. Organizations should procure and install state-of-the art information technology infrastructure that supports their MIS objectives.

References

Abdulkarim, A.M. (2019). *Introduction to information management system: BED 120 course reading material.* Federal College of Education (Technical), Omoku – Rivers State.

Anderson, D. (2010). Managing information systems. *International Journal of Information Management*, 51(3), 231 – 245.

Bakri, A.M., Abudlmalik, N.H., &Hussin, N. (2017). The competency of information management in organization for better decision making. *International Journal of Academic Research in Business & Social Science*, 7(12), 486 – 496.

Gharaibeeh, S.A.,& Malkawi, N.M.M. (2013). The impact of management information system on the performance of governmental organizations: study of Jordanian ministry of planning. *International Journal of Business & Social Science*, 4(17),102 – 109.

Gordon, S.R.,& Gordon, J.R. (2016). Information system: A Management Approach. *Journal of management information systems*, 7(6), 86 – 96.

Greenberg, J. (2011). Organizational justice: the dynamics of fairness in the workplace. In S. Zedeck (Ed.) *APA handbook of industrial and organizational psychology*. (pp 271-327).American Psychological Association.

Jamwal, D., & Singh, N. (2011). Management Information System Competencies and Strategies. *International Journal of Computer Science and Technology*, 2(1), 109 – 112.

Johnstone, D. (2017). The future of information management. Crown records management. https://themover.co.uk/features/2017/02/22/the-future-of-information-management.

Kiniti, S.,& Standing, C. (2013). Wikis as information management systems: issues and challenges. *Journal of Systems and Information Technology*, 15(2), 189 – 201.

Kroenke, D.M. (2011). *Using MIS, third edition*. Prentice Hall.

Leuf, B.,& Cunningham, W. (2011). *The wiki way: collaboration and sharing on the Internet*. Addison-Wesley.

Levinson, C. (2018). What are organizational systems? https://bizfluent.com/info-8403547-organizational-systems.html

Lin, H.F. (2013). Examining the factors influencing information management system adoption and continuance intention. *Knowledge Management Research & Practice*, 11(4), 389– 404.

Lopez-Nicolas, C.,& Soto-Acosta, P. (2010). Analyzing ICT adoption and use effects on information creation. An empirical investigation in SMEs. *International Journal of Information Management*, 30(6), 521 – 528.

Martocchio, J.J. Strategic reward and compensation plans. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology* (pp 343-372), American Psychological Association.

Cite this article as

Ogonu, O. G., & Abruime, F. E. (2020). Organization As A System And Application Of Management Information System For Its Survival. *THE COLLOQUIUM*, 8(1), 130-139

Mehdi, B. ,&Jafar, B. (2013). Management information system, challenges and solution. *European Online Journal of Natural and Social Sciences*, 3(2), 374 – 381.

Nadeem, I. (2019). Trends in management information system. https://moonwelfarefoundation.blogspot.com/2018/11/trends-in-management-information system.

Priyakshi, M. (2021). Organization: definition, characteristics, function, elements, principles. https://www.economicsdiscussion.net/organization/organization-definitions/32336

Reich, T.C., & Hershcovis, M.S. (2011). Interpersonal relationship at work. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology*.(pp 385-394), American Psychological Association.

Schumpeter, E. (2011). Tutors to the world organization: Business schools are globalizing at a furious pace – which is largely a good thing. *The Economist*, 399, 74.

Smith, R.H.,&Leidner, D.E. (2009). Information Management System: Issues, Challenges and Benefits. *Communications of the Association for Information System,* 1(7), 1 – 37.

Surbhi, S. (2017). Organization. https://businessjargons.com/organization.html

Teo, T.S.,& King, W.R. (2013). Integration between Business Planning and Information Systems Planning: An Evolutionary-Contingency Perspective. *Journal of Management Information Systems*, 14(1), 185 – 214.

Ventatesh, U. (2021). Organization: Meaning, Definition, Concepts and Characteristics. https://www.yourarticlelibrary.com/organization/organization-meaning-definition-concepts-and-characteristics/53217.

Vocabulary Dictionary (2021). Organization. https://www.vocabulary.com/dictionary/ organization.

Wang, Y.,& Wang, Y. (2016). Determinants of firm's information management system implementation: An empirical study. *Computers in Human Behaviour*, 64, 829 – 842.

Wendel, C. (2017). Challenges of information management.www.bizfluent.com on 22nd November, 2019.

Zed, L. (2021). Organizationas system. https://www.23computing.com/systemsanalysis/organizations-systems/

Zurich, N. (2021). Viewing your organization as a system. https://knowhow.ncvo.org.uk/your - team/people-management-skills/change/organizations/systemsview

Cite this article as