

DIGITALIZING THE MANAGEMENT OF PRIMARY EDUCATION FOR EFFICIENCY IN SCHOOL ADMINISTRATION

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Abstract

The global community have progressively moved from analog to digital economy. The mode of operations in organizations have shifted from the use of manuals and machines to the use of digital technology. Breakthrough in digital technology have helped to provide variety of information needed in the world of work and learning, and have also helped to improve practices in medicine, engineering, communication and information technology. Digital technology have been a major source of developing new ideas, skills, and method of performing task and solving problems more effectively. The paper discusses the need to digitalize the management of primary education for efficiency in school administration. Digital technology has been embraced by both production and service oriented organizations such as Banks, manufacturing companies, churches and allied organizations. All such organizations that have embraced digital technology have experienced maximal efficiency in their goal attainments. The school system especially the primary schools must key into the utilization of digital technology in its activities for it to remain relevant and functional. The cardinal objectives in the management of primary education is to plan, organize and coordinate human and material resources towards the achievement of set goals. These roles has been simplified through the use of digital technology. The use of digital technology in the management of primary education as advocated in this paper has the benefit of quick data processing in the areas of record keeping such as students records, staff records, financial records, and facilities records as well as instructional delivery records etc. The paper concludes that primary school administrators need to be conversant with digital knowledge to be able to key into global thinking in management practices. It is suggested among others that school administrators be trained and retrained to fit into their role in a technology driven global economy so as to remain functional and effective in fostering a more efficient and effective learning environment in primary education.

Keyword: Management, Primary education, School administrator, Digitization, Digital technology

Introduction

Management is a comprehensive process that involves achieving goals through group efforts, purpose, and goal oriented approaches. School administration is an aspect of management that focuses on facilitating the realization of stated objectives through systematic management of problems and careful utilization of scarce resources (Peretomode, 2004) The practice of educational management has always been about putting together relevant resources like school administrator, teaching staff, administrative personnel and other support staff, capital, laws, pupils as well especially parents etc., for efficient running of the school system and ultimately to achieve educational goals. The management of Primary education entails the achievement of both short-term objectives and long-term educational goals which are very significant in a child's overall development as it lays the foundation for cognitive learning, behavior modification, social and emotional development, character development, cultural awareness, academic skills and overall preparation for the future.

To digitalize the primary education system is simply the process of converting analog information into



a digital format. It gained popularity in the 20th century with the advent of PCs and internet, it converts different types of information into digital format so digitizing the management of primary education will involve leveraging on technology and adopting digital solutions to create more efficient student-centered learning environment ultimately leading to a better educational outcome.

Conceptual Clarification

Digitization

This involves the process of information being organized in discrete units of data called bits that can be handled differently usually in multiple-bit groups called bytes (Laudon& Laudon,2016). This is a binary data that computers and many devices with computing capacity such as digital cameras and digital hearing aids can process. Here, information is digitized through a process called encoding which converts analog signals into a digital format. This typically involves one or more processes like; Scanning, Optical character recognition, Recording, Sampling, Audio and video digitization and data digitization (Turbanetal.,2018). The following are examples of information that can undergo digitization;

- (i) Text such as books, articles etc.
- (ii) Images such as photos and artworks etc.
- (iii) Audio such as music, speeches etc.
- (iv) Video such as movie etc.
- (v) Data such as staff, students and financial data etc.

Management

Management can be seen as a process involving comprehensive activities and tasks undertaken for the purpose of achieving goals. Historically, management first developed as an authoritarian philosophy. Later on, it turned paternalistic. Still, later, constitutional management emerged, characterized by a concern for consistent policies and procedures for dealing with the working group (Kirechi, 2019). Finally, the trend of management turned towards a democratic and participatory approach. Modern management is nothing but a synthesis of these four approaches.

Management is concerned with productivity thereby implying efficiency and effectiveness. As a concept, it has broadened in scope with the introduction of new perspectives by different fields of study, such as economics, sociology, psychology and the likes including educational management. Its features include but not limited to;

Management As Associated With Group Efforts

It is usual to associate management with a group. Although people as individuals manage many personal affairs, the group emphasis on management is universal. Every enterprise entails the existence of a group to achieve goals. It is now established that goals are achieved more readily by a group than by any one person alone (Katzenbach, 2013).

Management as Purposeful Tool

Wherever there is management, there is a purpose. Management deals with the achievement of something definite expressed as a goal or objective (Porter, 2011). Management success is commonly measured by the extent to which objectives are achieved. Management exists because it is an effective means of getting the necessary work accomplished.

Management As A Combined Effort

Management is sometimes defined as "getting things done through others effort'. Besides the manager of a firm, there may be accountants, engineers, system analysts, salesmen and a host of other employees working but it is the manager's job to integrate all their activities. Thus, it can well be said that participation in management necessitates relinquishing the normal tendency to perform all things oneself and getting tasks accomplished through group efforts (Collins, 2011).

Management As Goal-oriented Tool

Managers focus their attention and efforts on bringing about successful action. Successful managers have an urge for accomplishment. They know when and where to start, what to do with keeping things moving, and how to follow a goal-oriented approach.



Management As An Indispensable Tool

Management can neither be replaced nor substituted by anything else. Even the computer which is the wonderful invention of the twentieth century can only aid but not replace management. We know that the computer is an extremely powerful tool for management. It can widen a manager's vision and sharpen his insight by supplying more and faster information for making key decisions (Drucker, 1999). The computer has enabled the manager to conduct analysis far beyond the normal analytical capacities of man. But what happens in reality, is that the computer can neither work by itself nor can it pass any judgment. The manager plays his/her role by providing judgment and imagination as well as interpreting and evaluating what the information/data mean in each case.

Management As An Intangible Tool

Management is often called the unseen force; its presence is evidenced by the results of its efforts:,motivation among employees, discipline in the group, high productivity, adequate surplus,etc. Conversely, the Identity of management may also be felt by its absence or by the presence of its direct opposite mismanagement. The consequence of mismanagement is anybody's guess (Huczynski, 2010).

Management As A Tool For Better Life

A manager can do much to improve the work environment, stimulate people to perform better, achieve progress, bring hope and accomplish better things in life (Huczynski, 2010). The study of management has evolved into more than just the use of means to achieve ends; today it includes moral and ethical questions concerning the selection of the right ends towards which managers should strive. Management is the science and art of getting people together to accomplish desired goals and objectives by coordinating and integrating all available resources efficiently and effectively.

Primary School Administration

Administration is an aspect of management that focuses on facilitating the realization of the stated objectives of primary education through a systematic process of problem solving and careful utilization of scarce resources which include human and material resources Peretomode (2004). He drew a line of distinction between educational management and administration. According to him, educational management is concerned with the formulation of plans, programmes and policies while educational administration is basically the implementation or execution of these plans, programmes and policies. Administration still consist of components of planning, organizing, programming, staffing, budgeting, coordinating, reporting and evaluating,however,this activities are carried out on a smaller scale compared to management.

Digitizing The Management Of Primary Education For Efficiency In School Administration

Primary schools administrators can create a supportive and creative environment that benefits students, teachers and the wider community by leveraging on the knowledge of digital technology to streamline administrative processes using digital tools such as;

Learning Management Systems (LMS): A software application used to manage, track and deliver online courses, training programs and educational resources.E.g Canvas,Blackboard, Moodle.

Student Information Systems (SIS): A software application used to manage students data including demographics, attendance, grades and transcripts.E.g Power School, JMC, RenWeb.

Communication and Collaboration Platforms: These are online tools that enable students, teachers and parents to communicate, collaborate through messaging, video conferencing and file sharing.E.g Google, Workspace, Microsoft Teams, Slack.

Digital Payment System: An online platform that enables secure and efficient financial transactions such as tuition payments, fee collections and online donations.E.g Paypal, Stripe, Square. 5

Online Resources And Educational Software: These are digital tools and applications that provide educational content, interactive simulations and learning activities.E.g McGraw-Hill Education, Khan Academy, Duolingo.



Data Analytical Tools: These are software applications used collect, analyze and visualize data to inform instructional decisions, track student progress and evaluate program effectiveness.E.g Tableau, Power BI, Excel.

Role Of The School Administrator In The Use Of Digital Technology In School Administration

The school administrator performs many tasks that requires the application or use of digital technology which will enhance their responsibilities, increase their efficiencies and improve student outcomes.Gorton(1983,pp.47-49) identified several broad categories of their component activities which are listed below;

Provide guidance and counselling services: School administrators can utilize digitization by engaging the use of online counseling platforms through data analysis and digital resources to support students guidance and counseling.

Institute procedures for the orientation of pupils: School administrators can utilize digitization by developing digital orientation programs like online welcome package and virtual tours to engage students and even parents.

Establish school attendance policy and procedures and maintain a system of child accounting: School administrators can utilize digitization by implementing digital attendance systems, online students information systems and mobile apps for tracking attendance and student data.

Help formulate staff personnel policies: School administrators can utilize digitization by developing digital HR systems, online policy manuals and electronic staff evaluation tools.

Stimulate and provide opportunities for professional growth of staff personnel: School administrators can utilize digitization by providing online professional development opportunities like webinars and digital resources for staff growth.

Develop and administer policies and procedures for parents and community participation in school matters: School administrators can utilize digitization by creating online portals for parent teacher communication, digital volunteer management systems and social media platforms for community engagement.

Help formulate curriculum objectives: School administrators can utilize digitization by developing digital curriculum maps, online learning platforms and educational software to support curriculum goals.

Provide for the supervision of instruction: School administrators can utilize digitization with instructional coaching, online lesson planning and virtual classroom observations.

Prepare the school budget: School administrators can utilize digitization by implementing digital budgeting software, online financial management systems and data analytic for budget planning.

Provide for a system of internal accounting: School administrators can utilize digitization by engaging the use of digital accounting software, online payment systems and electronic invoicing to streamline financial management.

Benefits of digitization

Common benefits of digitization includes but not limited to;

Ease of Access: Digital information can be easily stored, accessed and shared.

Easy Data Analysis: Digital information can be manipulated more easily than analog information.



Digital Libraries and Archives: Digitizing books, manuscripts, historical documents and cultural items increases accessibility to these resources while preserving them for future generations.

Education and Online Learning: Due to the availability of e-learning resources, remote learning opportunities and interactive digital tools, digitization has made individualized learning experiences and online assessments easier.

Increased Operational Efficiency: Educational personnel can streamline procedures through digitization resulting in shorter response times and Increased productivity.

Reduced Cost: Digitization can help save money by reducing the need for paper documents and other analog materials.

Challenges of Digitization

Technical and financial challenges: The move from analog to digital management of primary school by school administrators requires a high level of investment on this technological gadgets. To acquire this, there must be finances as technical and financial issues are a two-fold.

Manpower: As this technological gadgets are brought in, there is need for matching manpower and the task of training and retraining school administrators to fit into the digital process poses as a challenge.

Power Supply: The epileptic power supply and the invariable dependence on generators creates a high cost in the acquisition of the technological gadgets which challenges the digitization of the management of primary education by school administrators.

Knowledge Gap: How aware are the audience(school administrators, other personnel, policymakers, students and sundry)of the digitization process? Most of the population in rural areas and even some of the professional bodies are not fully grounded in the digitization process, thereby creating a knowledge gap which creates a challenge by drawing back arriving at organizational goals.

Insecurity: This can be as a result of host community clash which could lead to looting or destruction of the technological gadgets or burglary activities within the school premises, either way this challenges digitization badly.

Conclusion

Digitizing the management of primary education for efficiency in school administration aims to foster a more efficient and effective learning environment through efficient record keeping, enhanced decision making, improved communication, streamlined processes, access to resources, enhanced security and also cost effectiveness etc. This often leads to improved students outcome, enhanced teacher productivity, better resource management, increased parental satisfaction and stronger accountability and transparency.

Suggestions

- 1. School administrators should be trained and retrained to fit into their role so as to help accelerate the digitizing process.
- 2. Government should provide professional manpower in the primary education sector so as to meet the aims of digitization.
- 3. Government should ensure steady power supply within the primary school environment so as to enhance the functions of this technological gadgets.
- 4. Ultimately, government should allocate funds for the acquisition and maintenance of the technological gadgets.



References

- Adebayo, A.A. (2017). The impact of digitization on education. Journal of Education and Human Development, 6(1), 1-9.
- Bosi, M., & Goldberg, R. (2017). Introduction to digital audio. Routledge.
- Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W.W.Norton & Company.
- Chen, Y., Zhang, J., &Li, Z. (2019). Data digitization: A systematic review. *International Journal of Information Management*, 46, 137-146.
- Collins, J. (2011). Good to great. Harper Collins.
- Drucker, P. F. (1999). Management: Tasks, responsibilities, practices. Routledge.
- Ezeh, U.N. (2019). Digitization of education in Nigeria: Challenges and opportunities. *Journal of Educational Technology*, 20(2),1-12.
- Gonzalez, R.C. (2018). Optical character recognition. In Encyclopedia of Library and Information Sciences (pp. 1-8). Taylor & Francis.
- Huczynski, A. (2010). Management and organizational behavior. Pearson Education.
- Hutchison, A. (2017). Recording: A very short introduction. Oxford University Press.
- Katzenbach, J. (2013). The discipline of teams. Harvard Business Review.
- Kirschenbaum, M.G. (2016). Track changes: A literary history of word processing. Harvard University Press.
- Kirezci, H. (2019). Chester Barnard and the Systems Approach to Nurturing Organizations. *Journal of Management and organization*, 25(6), 839-854. DOI: 10. 1017/jmo.2019.23.
- Koontz, H. (1983). Management: A global perspective. McGraw-Hill.
- Laudon, K.C., & Laudon, J.P. (2016). *Management information systems: Managing the digital firm*. Pearson Education.
- Liu, S.S. (2016). Digital image processing. Springer.
- Oladipo, E.O. (2020). Digitization of primary education in Nigeria: A review of the challenges and benefits. Journal of Primary Education, 10(1),1-15.
- Peretomode, V. (2004). *Educational administration and management*. Heinemann.
- Porter, M.E. (2011). Competitive advantage of nations. Palgrave Macmillan.
- Rife, D.D. (2018). Sampling: A very short introduction. Oxford University Press.
- Robbins, S. P. (2005). Organizational behavior. Pearson Education.
- Turban, E., Outland, J., King, D., Lee, J.K., Liang, T.P., &Turban, D.C. (2018). *Electronic commerce: A managerial perspective*. Springer.