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RESOURCE MANAGEMENT: A VITAL COMPONENT OF EDUCATIONAL MANAGEMENT

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ABSTRACT

This study makes the case that resource management is a vital component of educational management. The conceptual framework proposes a relationship between resource management and educational management, moderated by ministers/commissioners of education and school heads. Human resource management, time management and management of physical assets were identified as the key dimensions of resource management. On the other hand, academic excellence, human capital development, and national development are the measures of effective educational management. The researcher argues that with effective resource management (where human resource management, time management, and physical asset management are proxies), the academic excellence of students would improve, human capital would be developed, and the nation would be developed. Resource management is so significant that this study identifies it as a potent predictor of success in educational institutions and a major requirement for attaining educational objectives and national development. Several factors were found to be militating against the effective management of educational resources. These include political corruption, overstretched physical equipment, the leadership style of those in authority, political and legal constraints, among others. Thus, this study suggests that leaders in the educational system should be trained adequately in the management of educational resources, to achieve a high level of efficiency and effectiveness in the use of educational resources. Furthermore, it suggests, among others, a study that focuses on the connection between educational management and national development.

Keywords: Education, Management, Educational Management, Educational system, Resource, Educational Resource, Resource Management, Human Resources, Non-human resources, Time management, Academic Performance, National Development, Challenges, Strategy, Techniques.

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INTRODUCTION

Every organization has resources that support its activities and engender development. In the educational system, human resources and non-human resources exist to support the actualization of its mandate. These resources include academic and non-academic staff; administrators, material resources, machines, technologies (analog and digital), documents, time, funds, etc. It is of note that the success of an educational institution is predicated on the quality of these resources and the efficiency of their use. However, research reports of Nwakpa, 2015; Okeze and Jackson, 2017; Wahab, Oshinyadi and Soyemi, 2017 indicate that, in many cases, required resources are unavailable, inadequate or mismanaged. The implication is that the educational system fails to perform its core duties and loses its potential to contribute to human capital development. With several reports about resource unavailability, inadequacy and mismanagement and the attendant consequences on students' academic performance (Nwakpa, 2015; Okeze & Jackson, 2017; Wahab et al, 2017), the relevance of resource management in the educational sector is brought to fore. This study takes the position that resource management is a vital component of educational management.

BACKGROUND TO THE STUDY

Educational management is a process that requires practical steps that underpin the delivery of relevant learning outcomes to students in the educational system. The educational system has units that comprise the school system, the ministry of education, and other formal and informal learning organizations. Most of this study will focus on the school system and its resources, with teachers as key human resources.

In general, schools exist to provide education. This comes in the form of concepts, information, and knowledge delivered to students, which may not be available to them in their families and communities (Young, 2011). This role makes the school system a foundational institution of human society. By facilitating the process of knowledge development in students, the school system provides conditions that enable societies to innovate and change (Young, 2011). This function of the school system remains unchanged, over the years.

Industries, organizations, and institutions of the society rely on the school system to develop the right knowledge in individual members of the society through its process of education. From etymology, the word 'education' means "to bring up, or to train; to lead out or to draw out." This implies a developmental process. Education is the process of developing an individual to become useful to his or her society (Akinfolarin, 2016). In other words, education is a tool for human capital development and a fundamental component of national development and advancement in society. It is; therefore, imperative to effectively manage the process of delivering education.

The word 'management' can be traced to Latin, Italian and French roots in its evolutionary process. The Latin word that originated the word 'management' is, *manus*, meaning "hand." Later on, the Italian word, *Menaggio*, evolved, meaning "to handle, or touch," especially "to control a horse," and, finally, the French word *manege*, meaning "horsemanship." In the English dictionary, the word 'manage' means "to control or direct by administrative ability, to wield (a tool or object) by hand, to effect by effort, or to carry on affairs."

Management is commonly applied to businesses and organizations to mean the coordination of the efforts of people to meet desired goals through effective and efficient use of

available resources. According to the classical and renowned management guru, Henri Fayol, management means to forecast, to plan, to organize, to command, to co-ordinate and to control (Oku et al, 2008). It is; therefore, a huge task, requiring special skills and competence.

Organizations, systems and business entities live or die based on how they are managed. Poorly managed systems would fail, while well-managed systems thrive and last long. Based on this, Adebayo (2001) contends that management must exist wherever people are brought together to use tools, equipment, and material resources to attain the goals for which the organization was established.

Educational management integrates materials, processes, systems, and people that plan, organize, direct, administer, coordinate, supervise, evaluate, and control the activities of an institution of learning. Educational management is a key process of actualizing the purpose and mandate of the educational system. The role of education as a tool for national development can only be performed through effective management and administration (Wahab et al, 2017). Thus, a well-managed educational system entrenches individual and national development.

Usman (2016) insists that the quality of the educational system of a person determines the quality of that society. Without a system of management, the best would not be derived from the learning process; goals and objectives would not be met, and the society would advance at a reduced rate.

The management of a school institution pulls educational resources together and allocates them effectively to accomplish the objectives of the institution (NTI, 2004). However, effective educational management becomes unattainable where requisite educational resources are lacking or misappropriated. For this reason, this study considers resource management a vital component of educational management. Without effective and efficient management of resources, there is no hope of achieving educational objectives (Nwakpa, 2015; Usman, 2016; Okeze & Jackson, 2017; Wahab et al, 2017). To perform all of its functions, the educational system must engage human and non-human resources.

CONCEPTUAL CLARIFICATION

Resource

From its etymology, a resource refers to a “means of supplying a want or deficiency.” The English word ‘resource’ comes from the French word, *resource* which implies "a source, or a spring." It is a modification of the old French word, *resource* meaning "to rally, or rise again," which was derived from the Latin word, *resurgence*, meaning "rise again." The first recorded application of the word ‘resource’ in English literature presented it as "a country's wealth." This etymological analysis suggests that a resource is something that can be deployed or used to satisfy human wants. In other words, resources are elements, materials, documents, funds, forces, strength, entrepreneurial skills, variables, information, technology, time, etc., that can be utilized, explored, exploited, called upon, resorted to or taken advantage of to meet set goals. Hansen (2018) refers to a resource as anything needed to execute a task or a project. Resources can also be defined elements that control production, exchange, and consumption in an organization (Chen, 2012).

Resources can be classified as human and non-human, on a broad scale, where non-human resources consist of materials, machines, funds, and infrastructure that people handle as

they execute their tasks. Another way to classify resources is by using four m's – men, money, machines, and materials (Akinfolarin, 2016). Resources can also be grouped as tangible or intangible resources. Tangible resources refer to those resources that can be touched. The issue with tangible/intangible classification is that those resources counted as intangible are often ignored (Kafuiaheto, 2011). Resources commonly ignored on the assumption that they are intangible include time, health, and social harmony, among others. The implication is that when so-called intangible resources are excluded from the set of resources, human beings lose the ability to clearly understand the true nature of resources.

Resources are defined by their value to humans and not based on their intrinsic values (Kafuiaheto, 2011). A resource is considered based on human ability and needs, not based on the nature/characteristics of that resource. When humans study natural systems, technologies, and inventions, they only regard as resources those elements they understand; those elements they have knowledge and technology to utilize, which help them to meet desired goals (Kafuiaheto, 2011; Chen, 2012). By and large, resources cannot be separated from human appraisal and knowledge (Chen, 2012).

Thus, the resourcefulness of a material depends on the role it plays in the attainment of definite goals and objectives, which role also defines the quality of the resource, its rating, its cost, and its deployment. It is; therefore, the right to refer to resources as means to given ends. Through their resource sets, organizations gain support and supply for their vision and objectives.

In the end, only those factors that provide value to human beings are regarded as resources. Therefore, resources are what we call them. This corroborates Chen's (2012) assertion that resources are not, they become; suggesting that resources evolve from interactions among nature, humans, and culture. Interestingly, resources evolve through advances in human societies, leading to the discovery of new resources and efficient ways of utilizing old ones (Chen, 2012). More so, resources can be combined to address the issue of inadequacy of resources.

Resources in the Educational System

Resources found in the educational system can broadly be grouped as human and non-human resources. Human resources consist of academic workers (teachers, administrators, directors of education) and non-academic workers (cleaners, security personnel, technicians, accountants, auditors, clerks, secretaries, assistants, etc). Non-human resources include tools, equipment, materials, buildings, information technology systems (analog and digital, hardware and software), documents, methods and techniques, intellectual properties, and financial resources (Omebe, 2014; Usman, 2016; Nwakpa, 2015; Okeze & Jackson, 2017; Wahab et al, 2017). These elements can be directly or indirectly utilized for education and training support (Nwakpa, 2015).

Generally, anything required to deliver educational services is classified as an educational resource. The human component of educational resources interacts with other forms of resources to produce the needed outcomes (Usman, 2016). Additionally, educational resources can be obtained within a school organization (internally) or from outside the organization (externally), and can be consumable or re-usable (Nwakpa, 2015; Bird, 2018). This implies that parents can be regarded as resources, although they are not directly engaged.

These resources need to be managed effectively and efficiently to attain optimal results in the educational system. Resource management controls the quality and quantity of educational

resources, and, in turn, the quality and quantity of the output generated from the educational process (Akinfolarin, 2016; Nwakpa, 2015; Usman, 2016; Okeze & Jackson, 2017; Wahab et al, 2017; Bird 2018).

RESOURCE MANAGEMENT

The strength of an organization is determined not only by the quality of its resources, as noted by Wahab et al (2017) and Ike (2017), but also by how they manage the resources they have. In previous sections, it was stated that resources can be combined for effectiveness and efficiency. The combination of resources is an attempt at managing resources. An organization may have great resources, but not know how to use them. Therefore, good management of resources is more important than having great resources without making proper use of them.

In project management, organizational management, and in all forms of management, resource management is an elemental and critical part. Management fails; an organization fails when it fails to efficiently manage its resources and its supply chain. The human and material resources of an educational institution must be assembled and effectively deployed for effective teaching and learning (Okendu, 2012). Without effective and efficient resource management, projects will fail, and organizations will lose money.

The business dictionary defines resource management as "the process of using a company's resources in the most efficient way possible." The objective is to be both lean and agile; that is, to not be wasteful, and, at the same time, responsive. Usman (2016) reported that resource management is necessary to mitigate waste and enhance the learning process. Generally, Organizations want to be efficient in the use of their resources, and at the same time, very responsive to market demands. The current trend is to minimize waste while delivering high service quality. This is the heart of resource management. All in all, organizations want to do more with less; they want to optimize available resources (Hansen, 2018).

Resource management ensures that an organization's resources are rightly deployed, and are available when they are needed (Akinfolarin, 2016). Resource management begins with knowing the resources required to get a job done. The next step is to acquire needed resources. Once resources are identified and collected, the next action is to determine the best way to use the resources required to perform a task or execute a project (Hansen, 2018; Bird, 2018).

It is important to have a thorough understanding of your objectives and capacity and to develop processes for maximizing the use of available resources (Hansen, 2018). This suggests that resource management connects the vision and capacity of an organization with its use of available resources. It also means that the objectives and capacity of an organization should inform how they engage and deploy their resources. A balance must be struck; otherwise, the goal of achieving the highest level of effectiveness and efficiency would not be attained (Ike, 2017). This is particularly important; to eliminate waste and ensure that only relevant resources are engaged in any project or activity. In this light, resource management can be viewed as a process of managing the resources that support the objectives and business of an organization.

Resource management transcends managing individuals and their tasks, or the making of reports (Bird, 2018). It means making sure that no resource is overabundant and none is insufficient. Thus, resource management is the pre-planning, scheduling, and allocating resources to scale up efficiency (Hansen, 2018). The synergy of resources is equally important. An environment that blends educators, parents, government officials, and community

representatives constitute the resources needed to meet the academic needs of students (Okeze & Jackson, 2017).

Generally, resource management could be in the aspect of time management, management of study environment, effort management, etc (Ahmed & Khanam, 2014). Each resource category needs proper management to get the best out of it. There must be a synergy of efforts; resources must be engaged and be made to interact in a way that supports organizational objectives (Ike, 2017). In the following sections, The researcher will review Human resource management, time management, and the management of physical assets and material resources.

Human Resource Management

Organizations depend on skilled and experienced human resources to handle their non-human resources. Educational institutions at all levels rely on human resources for the execution of its programs (Omebe, 2014). Considered the most important resource for the production of goods and services, human resources facilitate socio-economic development and enhance service delivery (Omebe, 2014). They are so significant to the progress of an organization that fails to recognize the role that they play in the attainment of organizational goals amounts to ineffectiveness, inefficiency, and hiccups in service delivery. Without human intervention, all other forms of resources would be useless and unproductive (Koko, 2001). Omebe (2014) argues that the success of an educational organization depends on the strength and caliber of its workforce – management, academic and non-academic staff. This workforce (human resources) is also considered the major asset that any organization can boast of, as they pursue their goals (Armstrong, 2009). For these reasons, human resource management is a compulsory requirement for organizational success.

Human resources are individuals with the ability to work with and through other people using the material and financial resources to achieve organizational goals and objectives (Akinfolarin, 2016; Obasi & Asodike, 2007). In a school setting, the duty of human resource management rests on the shoulders of principals or headmaster or school heads. In the ministry of education, there is a department created to take care of human resource management. Human resource management efforts in education support the attainment of educational goals. Human resource management in education consists of practices and methods of integrating and maintaining workers in the educational system (Omebe, 2014). These workers include teaching and non-teaching staff such as ministers, directors, secretaries, supervisors, administrators, teachers, clerks, researchers, cleaners, accountants, auditors, technicians, guards, etc.

Human resource management is an indispensable function of educational management (Omebe, 2014). This is because human resources enable the achievement of educational objectives. According to Wahab et al (2017), human resource management "deals with the establishment of procedures for the employment and payment of workers." This makes it an important function in the running of educational organizations. It ensures that human resources are effectively and efficiently deployed to various users within an organization. Through human resource management, organizations fulfill their social, legal and economic obligations towards their workforce, especially about working conditions (Maduagwu & Nwogu, 2006). Human resource management is also concerned with recruitment management (Collins & Wood, 2009)

and all other efforts that ensure that the right skills and talents are engaged in the work/business of an educational institution.

Human resource management influences the performance of workers in an organization (Omebe, 2014). It is believed that a satisfied worker is a dedicated and productive worker. Omebe (2014) sums up human resource management as the process of motivating workers to optimize their strengths to maximize their output. Human resource management goes beyond the utilization of people to meet educational ends. These must be harnessed to achieve educational objectives. Thus, human resource management takes the following dimensions: assessing the need for staff, satisfying the need for staff, and maintaining and improving staff services by developing staff members (Wahab et al 2017). In effect, human resource management serves to ensure that the right individuals are engaged in the learning process, considering that the quality of teachers in the system determines the effectiveness of the system (Nwakpa, 2015).

Omebe (2014) insists that development is impossible in the absence of sound human resource management. This is based upon the thought that sound human resource management bears a skilled and motivated workforce. There is no gainsaying the fact that human resources are critical to the effectiveness of the educational process. In the end, human resource management in a school setting results in teacher effectiveness (Wahab, et al, 2017). In Wahab et al (2017), it is reported that human resource management correlates with the academic performance of students. This implies that the more effective the human resource strategies of schools and the educational system, the better the performance of students.

Teachers as significant Human Resources

When we consider the vital role that education plays, the role of teachers as the executors of the mandate of education is made clear. Korpershoek, Harms, De Boer, Van Kuljk and Doolaard (2014) asserted that teachers affect student-learning in powerful ways and determine whether students add knowledge or not. They break down concepts and phenomena informs that students can comprehend, thereby causing significant knowledge development. More so, teachers interpret and implement policies enacted by planners and administrators. Teachers instruct, and provide education to learners and guide them in acquiring new knowledge to enable them to serve their societies adequately (Usman, 2016). All of this happens in the classroom, where teachers and students interact. It is right; therefore, to posit that the educational system depends heavily on teachers to execute its programs (Wahab et al, 2017; Usman, 2016). This makes teachers the greatest support to the educational system (Wahab et al, 2017; Omebe, 2014).

Human resource management is essential for the training of teachers, considering their roles in the educational process as indispensable elements of the learning process. Thus, Wahab et al (2017) assert that "the teacher should be thoroughly trained and supported in his work."The educational system cannot function effectively without teachers. Teachers support the educational process by maintaining and improving educational standards (Omebe, 2014; Usman, 2016). Hence, poor management of teachers can weaken their capacity to give their best, with adverse effects on the entire educational process. Omebe (2014) insists that teacher effectiveness determines the results of the educational process. For this reason, human resource management should never be messed with.

The Role of Human Resource Management

Every human resource management effort aims, ultimately, at developing workers. The role of human resource management can be classified as strategic and operational roles.

The strategic role

Strategic roles include planning, organizing, motivating, coordinating, directing, and controlling.

Planning: Planning is the first step because it leads to the formulation of policies and strategies that an organization runs with. It also encompasses the modeling and development of organizational objectives.

Organizing: Organizing deals with the pulling together of human and non-human resources towards the objectives of an organization. It focuses on the division of work, resource allocation, and the efficient deployment of both human and non-human resources.

Directing: Directing is the same as instructing or leading. The leader/manager gives instructions to his subordinates and guides them until they generate the required outcome.

Motivating: Motivation focuses on stirring the interests of workers in the work they do. This can be achieved by utilizing incentives or benefits given to workers to spur them to give their best.

Coordinating: Coordinating focuses on integrating individual efforts (Nwanchukwu, 2006) to boost overall organizational performance. It is the function that ensures that the activities of the various units, teams, groups, and departments that make up an organization are in line with the overall objective of the organization.

Controlling: Controlling can be done before or after an appraisal. It ensures that work is done as expected and that resources are engaged optimally, and not wasted.

The operational role

Operational roles focus on staff recruitment, staff development, staff maintenance, staff relations, performance appraisals, and staff rewards. These are efforts to ensure that the right people are engaged and retained.

Recruitment: There should never be a shortage of human resources in the educational process. Staff recruitment is where the functions of human resource management begin. The purpose of recruitment in educational organizations is to get the best crop of personnel that would interpret curricula and implements policies (Omebe, 2014). Recruitment exercises must be focused on attracting individuals with the right set of skills, abilities, knowledge, and experiences (Omebe, 2014). This is one of the greatest tasks for HR managers.

Development: Staff development strategies appraise staff performance and identify skills and competencies that should be developed in them to enhance their performance (Omebe, 2014). To achieve this, development programs are needed to build and strengthen the workforce to get optimal yield. Seminars, workshops, conferences, and in-service training would serve the purpose of staff development (Omebe, 2014). Such exercises will equip them for present and future jobs (Sims, 2002)

Maintenance: This aims to create a conducive work environment for all the workers in the educational process (Omebe, 2014). Specific functions include promotion and transfer, safety, security, and health services. The relevance of staff maintenance stems from the argument that productivity increases when workers are happy and satisfied.

Staff Relations: A good communication network within and among workers in the system is essential. The objective is to update, and include educational workers, with no group left out of the loop. All levels of human resources should be included in decision-making processes and collective bargaining to formulate the most effective, reflective and scalable strategies for educational development.

Job Rewards: Rewards are a way of motivating workers to do more. Omebe (2014) argues that workers' performance would significantly improve when they are adequately compensated in line with work done. Rewards can be in the form of allowances, medical insurance, vacation, etc.

NON-HUMAN RESOURCES

Apart from human resources and time, other resources in a school system need to be effectively managed. These resources include equipment, infrastructure, stationery, files, documents, technology, library, ideation resources (ideas, ideals, heritages, techniques, innovations), good classroom environment, libraries, furniture, apparatuses, and the right instructional materials (Okeze & Jackson, 2017; Omebe, 2014). They support and facilitate the work of teachers and other human resources in the educational system. Wahab et al (2017) noted that the availability of buildings, learning facilities, and instructional materials affect how teachers carry out their functions. Without the right set of resources, teachers would not be able to carry out their duties in effective and efficient ways. Research reports have also revealed that when these non-human resources are available, relevant, and adequate, academic performance is enhanced (Nwakpa, 2015; Wahab et al, 2017).

TIME MANAGEMENT

Time is one of the greatest resources for everyone, not just organizations, but individuals. It is both consumable and not recoverable. It is important to note that all activities of man are time-dependent (Ugwulashi, 2013), including activities carried out in the educational system. Unfortunately, time is generally mismanaged. As noted by Wahab et al (2017), many educational administrators would not recognize time as an important educational resource. However, time is a very important resource that guides and controls the delivery of educational services. Everything about a school system, which is an important unit of the educational system, is guided and checked by time. Therefore, it must be rightly managed.

Time is limited, even though many people do not see it like that. Not only is time extremely limited, but it also affects all stakeholders in the educational sector, and every aspect of human endeavor (Wahab et al, 2017). Time management is; therefore, an important consideration for educational organizations. It refers to self-management (Subramanian, 2016) aimed at making the most of our time. It is useful for structuring one's life, making one's day easier by balancing conflicting demands of time (Subramanian, 2016).

Time management comprises principles, skills, and systems that help us get more value out of our time (Subramanian, 2016). It means to exercise conscious control over the amount of time spent on an activity to increase efficiency and productivity (Subramanian, 2016). Time management is essential to teaching and learning in the educational sector (Ugwulashi, 2013). Thus, it is considered as one of the factors that can foster educational improvement in Nigeria (Ugwulashi, 2013). Wahab et al, (2017) make the case that time management in education is a

significant predictor of academic performance of students in Nigeria. They concluded that efficient management of educational resources coupled with effective time management gives rise to academic performance. Their findings indicate that time management helps in attaining set objectives. Subramanian (2016) also found that time management correlates with the academic achievement of students. Khan, Farooqi, Khalil and Faisal (2016) explored the relationship between time management and teachers' performance and found that teachers with better time management skills performed better than their counterparts. They also noted that when a teacher enhances his/her time management ability, he/she improves his/her class performance. In general, time management encompasses time analysis, planning, and scheduling, among others (Khan et al, 2016). Furthermore, Khan et al (2016) submitted that time management for teachers is a more important consideration than in other fields, given the position of teachers as molders of societies.

Effective management of time has been identified as a critical factor for success in organizations and businesses (Khan et al, 2016). Effective time management enables an organization to focus on what is more important to it, helps the organization to be proactive, helps in defining priorities and actions, and ensures the successful delegation of activities (Wahab et al, 2017). More so, appropriate time management leads to resource optimization, as it diminishes the misuse of time (Ugwulashi, 2012). One way to manage time in a school environment is through timetables that allocate hours to teachers and subjects.

RESOURCE MANAGEMENT TECHNIQUES

As already stated, resource management begins with the identification and acquisition of resources. Once resources have been assembled or identified, the next task is to deploy them and control their use. There are two common techniques of resource management found in extant literature: resource allocation and resource scheduling.

Resource Allocation: This has to do with the designation of resources to various projects. It implies tackling projects by applying the resources at an organization's disposal in the most efficient manner (Hansen, 2018). Resource allocation also refers to the process of identifying the resources that are needed to complete a task – the quantity required or the amount of effort required – and determining the best way to distribute them (Bird, 2018). Professional resource managers and project managers use resource allocation reports to understand resource availability (Hansen, 2018). Resource allocation reports additionally provide information on resource shortage. With such reports, it is easy to avoid delays and the possibility of going over budget. Also, resource management reports are effective in simulating resource allocation to ensure that no resource lies fallow. More so, good resource reporting capability helps to achieve transparency and efficiency over projects (Hansen, 2018).

Resource Scheduling: Once resources are identified or assembled, and allocated, the next action is to determine when (and how) the resources would be required (Bird, 2018). Scheduling deals with time and frequency of use. Resource scheduling also controls the volume of work and the extent to which a given resource is engaged. Through scheduling, an organization balances the required resources with the project life span. Also, resource scheduling determines the number of resources needed to do a job and when they will be needed (Bird, 2018). It's an advanced stage concerning resource allocation. While allocation focuses on making resources available for a task, schedule brings in time constraints. There are two methods of

scheduling resources: resource leveling and resource smoothing. Both techniques are necessary for dealing with resource conflicts.

Resource Leveling: With resource leveling, the goal is to balance resource usage to ensure that no resource is overused or underused (Bird, 2018; Hansen, 2018). Resource leveling takes care of peaks and places/enforce time constraints on available resources. In some instances, a resource may be engaged in multiple, interdependent tasks to strike a balance. For instance, an organization that develops graphic content may engage the services of a content developer who is also a graphic designer to cut down employment and maintenance costs. In the educational system, the leveling of resources is done in a way that ensures that no teacher (resource) has downtimes or is over-allocated. In a school, for instance, instead of hiring a further mathematics teacher, the school may have to engage mathematics teachers to handle further mathematics, thereby, maximizing available resources and at the same time cutting costs. More so, an English language teacher may be engaged to teach literature. Likewise, the economics teacher can teach commerce or accounts. In the same vein, the store-keeping teacher may be engaged to teach commerce. This is also applicable to non-academic staff, who may be engaged to undertake different functions to level resources and eliminate peaks and troughs. Resource leveling solves the problem of over-allocation of resources, especially human and material resources (such as equipment and technology). Over-allocation generates conflicts. Improper allocation results in problems in an organization, leading to wastefulness, underperformance, and additional expenses.

Resource Smoothing: In resource smoothing, the objective is to achieve the desired level of resource allocation without affecting the project schedule time. Resource smoothing is time-limited scheduling whereas resource-leveling is resource-limited scheduling (Bird, 2018; Hansen, 2018). In resource smoothing, resources are allocated based on the time estimated for the accomplishment of a given task. In resource leveling, resources are allocated based on the availability of resources and to ensure that no resource is over-allocated. To achieve resource smoothing, some tasks or works may have to be delayed. While leveling balances task allocation, resource smoothing ensures that no resource is idle at any given time. For this reason, tasks may be hastened or delayed; human resources may be assigned to multiple tasks. In the classroom instance cited above, after leveling resources by assigning equal periods to mathematics teachers, it is necessary to ensure that no teacher is idle within a given period, especially during third terms where academic activities are halted for some classes. This is one way to practice resource smoothing. The implication of not smoothing resources is that while some resources are overstretched some are underused. Nwakpa (2015) reported that less engaged workers have been found chatting with their colleagues or with their phones during working hours.

BENEFITS OF RESOURCE MANAGEMENT

The following benefits of resource management are found in extant literature (Hansen, 2018; Bird, 2018; Nwakpa, 2015; Ahmed & Khanam, 2014; Wahab et al, 2017). These benefits indicate that the success of an organization or a system revolves around the strength and capacity of its human and non-human resources, but, more importantly, on how they are managed.

- Through resource management, setbacks can be avoided. The key is to understand your resources and plan how to apply them. This will enable you to plan for troubles before they occur (Hansen, 2018). A well-managed set of resources helps to prevent hiccups and helps to avoid shortages and breaks in project execution.

- Resources management helps to prevent over-allocation or dependency on resources (Hansen, 2018). Through resource management, resources can be saved from being wasted and finances can be saved from being spent on wrong things (Bird, 2018). Thus, resource management is a significant cost-saving factor, allowing for the best and most effective use of limited resources (Bird, 2018).
- Resource planning and management help to determine whether a project would fail or work. With proper resource planning and management, you get to know and properly assess your strengths and weaknesses.
- Good planning and management of resources set the standard for others to follow and helps to build transparency within the team.
- Resource management and planning is a good way to measure efficiency (Hansen, 2018). With a clear understanding of your resources and all that is needed to execute a project, it becomes possible and easier to measure return on investment, ROI.

Educational resource management enhances academic performance. Findings from Ahmed and Khanam (2014) indicate that educational resource management underpins the learning process. Wahab et al (2017) concluded that proper management of educational resources significantly contributes to students' academic performance.

RELATIONSHIP BETWEEN RESOURCE MANAGEMENT AND EDUCATIONAL MANAGEMENT

Figure 1 presents the conceptual model for this study, developed by the researcher. This shows the relationship between resource management and educational management, as proposed by the researcher. This framework presents resource management as the independent variable and educational management as the dependent variable, with ministers and commissioners of education and school heads as the moderating variables of the relationship between resource management and educational management.

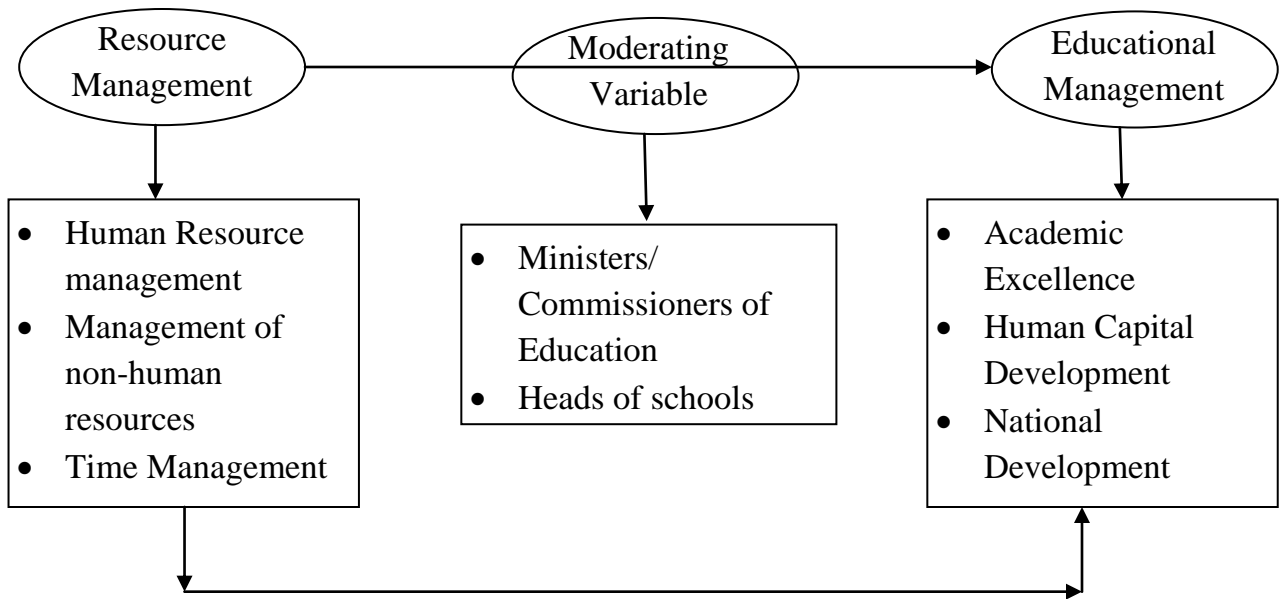


Figure 1: The relationship between resource management and educational management (Self developed).

According to this model, the dimensions of resource management (the independent variable) include human resource management, management of non-human resources and time management. The researcher believes that these are critical to the development of any educational establishment and determine whether the goals of that institution would be met or not. The measures of educational management (the dependent variable), as shown in the framework, are academic excellence, human capital development, and national development. The researcher believes that when resources (human, material, financial, technological, etc) are well-managed, it will result in improved academic excellence, human capital development, which, in turn, leads to national development. The Organization for Economic Co-operation and Development, OECD, defines human capital as "the knowledge, skills, competencies and other attributes embodied in individuals or groups of individuals acquired during their life and used to produce goods, services or ideas in market circumstances" (Pettinger, 2017). The researcher believes that when resources are well-managed, education becomes more effective, and contributes, in great measures, to the development of human capital. This framework suggests that ministers/commissioners of education moderate the relationship between resources management and educational management at the federal and state level, by controlling what schools do, by organizing seminars, conferences, workshops, etc., for teachers and educational workers and by ensuring that schools are run in line with prevailing educational policies. At the school level, school heads (proprietors, principals, headmasters, departmental heads, head teachers, etc) are responsible for managing the resources of their school to ensure that the objectives of the educational system are met.

ISSUES AND CHALLENGES OF RESOURCE MANAGEMENT

Poor academic performance of students in Nigeria has been linked to unavailability and inadequacy of resources, as well as the mismanagement of available resources (Okeze & Jackson, 2017; Wahab et al, 2017; Nwakpa, 2015). Research evidence indicates that both human and non-human resources are either unavailable or inadequate in many educational institutions

across the federation. There are also cases where resources are available and adequate, but mismanaged or misappropriated. These are the issues that bedevil the educational system and weaken its capacity to achieve its goals. The implication is that the system is unable to generate the required outcome, for the most part.

Among many public schools, especially those located in rural areas, these describe the state of educational resources: dilapidated buildings, lack of qualified and experienced teachers, lack of laboratory equipment, poorly equipped libraries, truancy of teachers and students, etc. These lapses, as Wahab et al (2017) noted, constitute critical challenges to educational goals. And unless stringent measures are adopted; unless checks and balances are established to manage educational resources, human and non-human alike; the educational system would not produce much.

Despite the known benefits derivable from human resource management, several educational organizations have yet to tap into its vast potentials. It is yet to be recognized as the pivot of success and growth by many educational institutions. Issues and challenges that militate against effective human resource management include: poor working conditions, problems of staffing, current call for the use of ICT in Education, students and staff indiscipline, funding issues, poor recruitment processes, little or no induction of human resources, poor supervision/appraisal of staff, poor personnel commitment to work and incessant transfer of teachers (Omebe, 2014; Galafa, 2018; Alsaaty & Morris, 2011). Mutungwa & Orodho (2015) indicate that inadequate funding; political corruption, overstretched physical facilities, inefficient management of available physical and human resources, and political and legal constraints are the main challenges of resource management in the educational system. The implication of this scarcity of relevant resources is the poor academic performance of students in their final exams (Nwakpa, 2015; Wahab et al, 2017).

Notable educational management issues include financing and lack of training for educational workers (Galafa, 2018). Educational funds for public schools are reported to be insufficient for educational activities (Galafa, 2018). Alsaaty & Morris (2011) indicated that poor financing, unavailability of modern educational technology, lack of qualified teachers, the poor salary of teachers, are among the challenges of educational development. In Nigeria, there have been several complaints about the budgetary allocations to education, which is believed to be very small and insufficient for educational development in Nigeria. As a result of funding shortages, teachers are poorly paid, infrastructure is lacking, and materials are in short supply (Ebuara, Ekpoh&Edet, 2009). Research evidence (Ebuara et al, 2009) has established a correlation between funding and national development, stating that poor funding militates against educational development and slows down national development. This makes a lot of sense, given that this study proposes a connection between resource management and national development (as a measure of educational development). Another critical issue is that poor funding results ultimately to the low standard of education in Nigeria (Ebuara et al, 2009).

Additionally, research evidence reports a lack of training for educational workers. The implication of the lack of training for educational workers is that they are unable to discharge their duties as professionally as required (Galafa, 2018). This lack of training also leads to poor maintenance of educational resources by those in authority. This insufficient training also implies that 21st-century workers cannot integrate 21st-century technology in their management of educational resources.

Furthermore, Tarrago and Wilson (2014) noted that how educational systems are managed prevents them from delivering quality outcomes. Additionally, how education is

structured is a considerable factor affecting educational management (Tarrago & Wilson, 2014). More so, the rigidity of educational structures and systems and the failure of them to adjust to current trends in global best practices constitute tremendous drawbacks to the management of education.

CONCLUSION

Having reviewed resource management, as it relates to educational management; the roles of resource management and the benefits of resource management, this study concludes that resource management is a significant predictor of success in organizations. In the educational system, resource management culminates in academic performance, human capital development, and national development, as captured in the conceptual framework of this study. Poor resource management would; therefore, result in poor performance.

RECOMMENDATIONS

Given the numerous benefits that come from resource management, the researcher recommends:

- That the ministry of education and schools in Nigeria should invest more resources in the management and development of their human resources. Also, school heads should be adequately trained on the techniques of resource management.
- Well-Detailed and empirical research into issues and challenges of resource management in educational institutions in Nigeria, as it is not the objective of this study.
- A study that examines the relationship between educational resource management and human capital development.
- A study that examines the relationship between educational management and national development.

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