

Digital Electronic Record Systems and Administrative Efficiency of the Civil Service in Delta State, Nigeria

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Abstract

Digital electronic record systems are information technology applications designed to store and manage data and other documents on a paperless platform. The purpose of this study is to examine the relationship between digital/electronic record systems and administrative efficiency of the civil service in Delta State, Nigeria. The study adopted the conceptual approach in investigating the relationship between the variables of the study. First, the researcher reviewed the independent variable of the study (digital record system) and dependent variable (administrative efficiency) as well as the measures of dependent variable which comprises of timely decision, efficient workflow and workforce wellbeing. The parameter of the review was basically to ascertain the relationship that exists between digital record system and administrative efficiency with main focus on measures of the dependent variables. The result of the analytical review of the study showed that, there is a significant relationship between digital record system and administrative efficiency with strong indication pointed at timely decision, efficient workflow and workforce wellbeing.

Keywords: Digital Record System, Administrative Efficiency, Timely Decision, Efficient Workflow and Workforce Wellbeing.

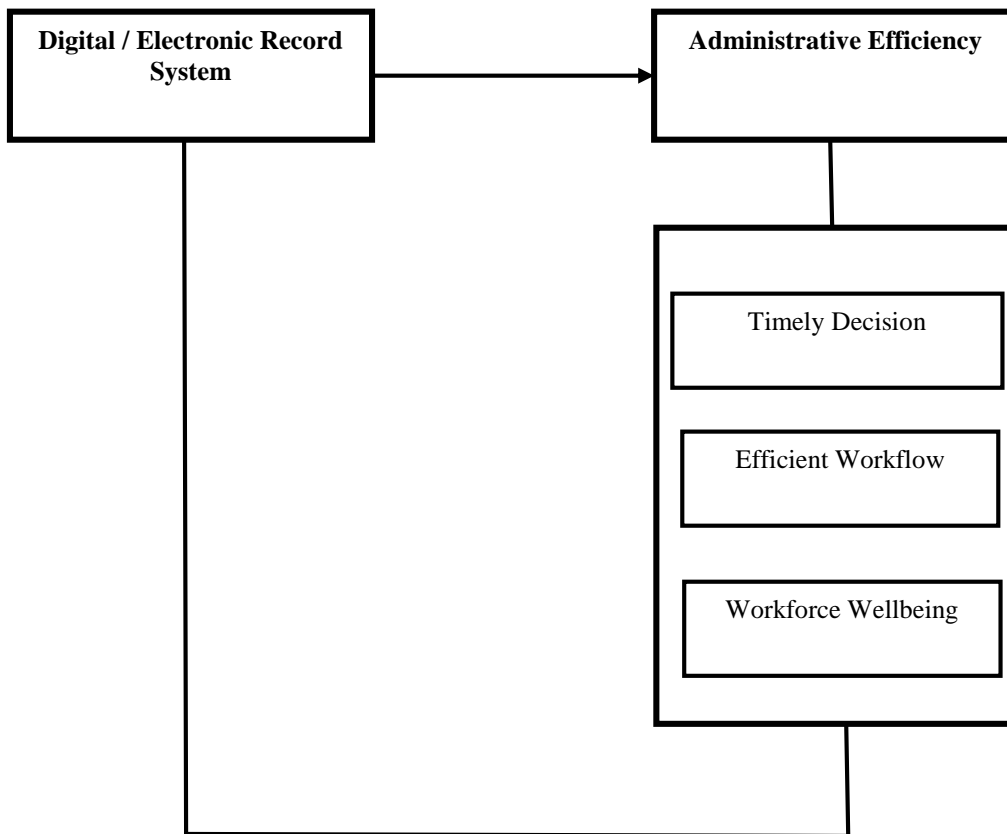
Introduction

The proliferations of data and other related documents in the civil service sector today in Delta State, Nigeria continues to threaten the administrative unit. In the past, data and document in the public organization was domiciled in the filing cabinet and other paper based system. Fortunately, we are in a digital era and everything within organizations today either government or private are run and managed electronically. Administrative efficiency is a common concept used on a daily basis by all economic agents. However, the most acceptable definition of it is by Wikipedia (2021) and it says that it is the ability of the administrator to achieve the goals and objectives of the organization. Lean Six Sigma says it is a process improvement approach that uses a collaborative team effort to improve performance by systematically removing operational waste and reducing process variation. It combines Lean Management and six Sigma to increase the velocity of value creation in business processes/ It went ahead to say that it is a team-focused managerial approach that seeks to improve performance by eliminating resource waste and defects. Total Quality Management (TQM) is the continual process of detecting defects and reducing or eliminating errors in manufacturing. Business Process Re-engineering (BPR) is the radical redesign of business processes to achieve drastic improvements in performance, efficiency and effectiveness. ISO 9001 is defined as the international standard that specifies requirement system (QMS). Organizations use the standard to demonstrate the ability to consistently provide products and services that meet customer and regulatory requirements. ISO 9001 is a globally recognized standard for quality management.

It helps organizations of all sizes and sectors to improve their performance meet customer expectations and demonstrate their commitment to quality. European Foundation for Quality Management (EFQM) mission is to empower organizations to achieve lasting impact, build a more sustainable future, and deliver meaningful benefits for all stakeholders. It has nine criteria that relate to key areas of organization, including leadership, strategy, people, partnerships and resources, processes, products and services, and various types of results. Nonetheless, there is still a common reference point by all users of the concept. It is used mainly in reference to governmental actions that are geared to serve the interest and ensure the well-being of the citizenry through proper management of both human and material resources. Therefore, administrative efficiency is the key to positive administrative changes (Armstrong & Bulmer, 2018). Administrative efficiency is the judicious utilization of agency's resources, proper conduct and management of governmental affairs at any government level to facilitate administrative effectiveness (Irfan, 2017).

Importantly, records and information play a critical role in fighting corruption, protecting citizen's rights, in ensuring transparency and good public sector services as well as governance. As such, there is need for government agency to recognize sound records management system as one of the priority areas. In spite of their significance, studies by the International Records Management Trust (IRMT 2019) among others suggest that record keeping systems in Africa generally have either collapsed or are in a state of disarray. Poor record keeping systems as argued by the Internal Record Management Trust (IRMT) and the World Bank has led to corrupt practices and lack of accountability and poor governance structures as well as weak decision making time. There are numerous studies on corruption and of accountability governments in Africa and how that has impacted negatively on socio-economic development of the citizenry. We have seen in Nigeria recently were very prominent citizens including a minister, public enterprises chief executives, lawyers and top civil servants have been prosecuted for corruption and economic crimes. These emanated from poor records keeping in the public sector.

The introduction of information and communication technology and the utilization of this tool in the administrative processes of Nigeria civil service sector was a sign of great relief with the believe that services of the sector will attain efficiency. The digital or electronic record system is a product of the information and communication technology. The main purpose is to ensure that official document in public institutions and organizations are stored and managed on a completely paperless platform. However, years after government spent huge sum of money on the acquisition and the development of the electronic system for records management, the public sector continues to struggle between going paperless completely. Therefore, the purpose of this study is to examine the relationship between digital or electronic record system and administrative efficiency of civil service sector in Delta State, Nigeria. In Delta State, the government introduced the digital electronic system in 2010 and as at date, they using the websites, emails, digital purchase receipts, word/excel documents and text messages. There are continuously training and retraining the public servants in the use of these electronic record systems.

Fig. 1: Conceptual Framework for Digital/Electronic Record System and Administrative Efficiency.

Source: Research, 2024

Literature Review

Theoretical Foundation

This study is based on the Diffusion of Innovation Theory, propounded by Rogers in 1962. Rogers' diffusion of innovation theory explained the involvement in the adoption of digital technologies and innovations in organizations. The theory also opined that all individuals and organizations will not adopt new or improved technologies at the same or point at which innovation are adopted will influence performance and efficiency. The two main assumptions of this theory are as follows: in a social system, there will always be a disparity in the level and time at which individuals and organizations within will adopt new ideas, techniques, and technology. The theory also explains and postulates that organizations that adopt innovations early will naturally outperform late adopters and the laggards. The implication of the first assumption is that no matter the level of digital infrastructures and digital training provided in an organization, not all the workers/management will accept and adapt to going digital. Thus, there will be obvious difference or gap in the level at which governments in Delta State accept this new digitalization, such as digital electronic record system. The second assumption is useful for explaining and predicting the interaction between workplace digitalization and administrative efficiency in government agencies. The justification for this theory as one of the theoretical pillars of this study is predicated on the fact that in a digitalized workplace, governments that quickly adopt digital record system will outperform their colleagues who for one or more reasons, slowly embrace the system or fail to implement it.

Digital Electronic Record System

Electronic record system is a digital database or software application designed to store, manage, and retrieve electronic records or information. The application replaces traditional paper-based record-keeping, enabling organizations to efficiently organize, access, and secure electronic data management and retrieval processes.

In today's fast growing digital era, organizations are creating, storing, and using more electronic records, and the systems used to create and manage these records are increasingly being integrated with each other. Until the early 1990s most records management related activities continued to be performed by capturing records to the end of the records life cycle in paper format. Paper records were classified for retention, packed for storage in boxes, and tracked with bar code labels placed on physical document or file folder. This is still a major method of records storage today. However, organizations relaxed that it was far more desirable to work directly with the electronic records management activities into electronic document management systems became critical to the implementation of well-planned information management systems. As organizations become increasingly automated, administrative business processes use of digital files and data became predominant in information processing. Organizations announced that prolific electronic records are considered as official records and tend to make new retention and disposition schedules for electronic records. In the early to mid-1990s, electronic records systems software integration occurred. Contemporary common software applications that are frequently used in offices can do exchange data; create graphics, and information content between different types of software packages. Most of these applications have been able to directly exchange and content so that an office worker with these applications can create sophisticated and integrated informative electronic documents.

The application of electronic record systems enables information to be accessed and presented at any time; especially those related to the various decisions within the institution, in addition to clarifying the procedures that help achieve fair job processes (Fawzy, 2003). According to Halawa and Nidaa (2013) electronic record system increases the credibility of the institutions that apply it, and it is also sufficient freedom for the beneficiary to obtain the required information about the institution, without blocking it under any circumstances, and all of this is done electronically.

Administrative Efficiency

The word administration is used all around us and in various ways. For example, the Oxford English Dictionary describes administration as follows: the process or activity of running a business, organization; etc. the management of public affairs, government the action dispensing, giving, or applying something. Over the decades, scholars have discussed the topic of efficiency along two major distinctions; also, it has always been subject to how the duties of government are defined. At one point in time, it was just to increase output; afterward, it was defined along pure business lines and later on, an element of value was added to cover the expectations of citizens as the most significant part of public goods and services. Schachter (2017) finds efficiency as an intrinsic value in public administration pointing out that its definition is debated among scholars of the field. Efficiency is the ability to do things well, successfully, and without waste. Efficiency has long played a central role in the terrain of public administration values and there is a growing demand that public organizations promote efficiency in the delivery of public goods and services to the citizens. Mihaiu, Opreana and Dritescu (2010) define efficiency as the relationship between the outcome effects, or output and the efforts made or input. Efficiency in this regard, can be achieved under the conditions of maximizing the results of an action in relation to the resources used, and it is calculated by comparing the effects obtained in their efforts. According to them, the outcome effects must be viewed not only in terms of economic but also in terms of social effects resulting from implementing a program.

Administrative efficiency is a common concept used on a daily basis by all economic agents. However, there is no precise and a universally acceptable definition of the term. It has a variety of meanings attached to it. Nonetheless, there is still a common reference point by all users of the concept. It is used mainly in reference to governmental actions that are geared to serve the interest and ensure the wellbeing of the citizenry through proper management of both human and material resources. Therefore, administrative efficiency is the key to positive administrative changes (Armstrong & Bulmer, 2018). Thus, administrative efficiency can be interpreted as the efficiency of the gathering, processing and communication of information (Jung, 2022).

Administrative efficiency connotes complying with due process, responsiveness to local needs, transparency, accountability and adhering to budget provisions (Longe & Durosaro, 2017). Administrative efficiency also looks at the systematic progress and well-organized administration (Payne & Pheysey, 1971 cited in Peter & Kavitha, 2020), they also posited that administrative efficiency in terms of the organizational structure, show how works are well organized and progress systematically and how information is gather, processed and communicated. For Marudas (2004) cited in Grizzle (2015), administrative efficiency is seen as program expenses, i.e., expenses for administrative purposes in relations to the total expenses. Administrative efficiency is the capacity of an organization, institution, or business to produce desired results with a minimum expenditure of energy, time, money, personnel, and material. Administrative efficiency is measured by looking at the extent to which work is well organized and progresses systematically. It is obvious therefore, that a result orient public sector in terms of delivering public services and improve value for public funds is the defining characteristic of administrative efficiency. Notably, most government in developing world has lack in efficient and effective administrative mechanisms to meet the citizens' demand.

Timely Decision

As time and day continues to move without waiting for no one, the efficiency of an organization depends mostly on the timely decision of the organizational leaders on matter affecting the future of the organization. Every decision has its own consequence, as such; decision making is a serious task that faces decision makers. Decision making is the process whereby an individual, group or organization reaches conclusions about what future actions to pursue given a set of objectives and limits on available resources. It is also the process of making choice out of alternatives choices. This process will be often iterative, involving issue-framing, intelligence-gathering, coming to conclusions and learning from experience. Timeliness reflects the ability of the organization to produce a response within an allotted time determined by the task requirements. Delays in completing a task are due both to the time required for processing information and making decisions and to the time required to effect communications among decision makers. Interestingly, organizations are formed when the task to be performed exceeds the capabilities of a single decision maker. Even when a single person can complete the task, he may not be able to produce a satisfactory response within the time limits imposed by the task. The organization designer is faced with the problem of designing an organization that will meet these design specifications and in addition, assign subtasks or functions to members of the organization so that no one is overloaded. The design has to be robust to accommodate the different decision making styles of different actual decision makers that may instantiate the organization at different times.

Efficient Workflow

Efficient workflow is concern with providing clearly defined tasks; prioritize automated support for business processes. Typically, an efficient workflow involves both people and software applications. Work is assigned to participants based on explicit resource allocation directives, which may link into an organizational database, and the timing is driven by an explicit representation of the temporal order of the various activities of the business process. Digital electronic record system is part of business information technology field that deals with controlling flows of digital record in both complex and small organizations. Workflow management in its most complete form includes a broad spectrum of aspects. The most import of these aspects are: routing of work objects (e.g. documents) through an organization as described by detailed route specifications. This includes the selection of alternative paths on 'splits' allocation of tasks in the workflow to actors (organizational workers) in the organization. The allocation can be based on actor functions, roles, workload and authorizations. Scheduling of tasks to be performed in time, dealing with workload of actors, prioritization of tasks, and availability of required resources. Scheduling includes alerting actors when tasks are to be performed. Scheduling of scarce resources like meeting rooms specialized equipment, based on resource availability usage per task, and task priorities. Monitoring the flow of work for management and alerting when attention is needed. Handling exceptional situations like missed deadlines or missing actors using exception definitions and general business rules. It may be clear that this long list of aspects causes a workflow management system dealing with all of this to be very complex.

Efficient workflow supports business processes by taking on their information logistics, which they ensure that the right information reaches the right person at the right time. Apart from the obvious fact that there is potential for savings in terms of time and money, there are other benefits in deploying electronic record system in the flow of administrative services in the public sector organization. By having explicit representations of these resource and control-flow dependencies, it can be claimed that changing workflows is easier and hence a business that has automated its processes by means of a digital technology may be more responsive to changes in its environment, such as changing old administrative processes in saving organization digital data and the flow of efficient service delivery. Efficient service delivery is the hallmark of every public sector administrator and any tool that can enable the achievement of this goal becomes necessary for good public sector development.

Workforce Wellbeing

The success of every organization depends on its workforce. Without the workforce, the objective of the organization cannot be met. Hence, the wellbeing of the organization workforce must be taken seriously. Workforce wellbeing is a psychological concept that defines the happiness and positive feelings of organization employees. The use of digital electronic system in organization workforce reduces workload and enables effective service delivery. There is this popular adage that, a happy employee is a productive employee. This is to say that, when employees are psychologically motivated positively, the employees perform at their best. Fortunately, the developing world is now, to a large extent driven by the knowledge economy, where an increasing number of jobs focus on technology and information production requiring employees with specialized skill sets, making individuals difficult to replace (Hellgren, Sverke, & Naswall, 2018). Supporting and retaining employees is therefore important for organizational success.

A civil servant spends one quarter of their adult life at work, and for many work is a key life pursuit. Feeling good and functioning well at work are therefore key components of a person's overall wellbeing. Experiencing a high level of wellbeing is associated with a range of positive organizational attitudes. These include superior work performance (Lyubomirsky, King, & Diener, 20015), low turnover intentions, low actual turnover (Boehm & Lyubomirsky 2018), greater effort and thought put into work, less absenteeism and fewer work related injuries (Keyes & Grzywacz, 2015). Given that work affects wellbeing, and that wellbeing is important for organizational success, it is in an organization's interests to support and promote workforce wellbeing at work (Dewe & Cooper, 2012; Hone, Jarden, Duncan & Schofield, 2015).

Wellbeing has been defined according to two main but distinct perspectives. According to the hedonic perspective, wellbeing is described as happiness (Ryan & Deci, 2011). This perspective emphasizes the importance of three components: life satisfaction, the presence of positive mood, and the absence of negative mood (Diener, Sapkota, & Suh, 2018). The second, eudaimonist perspective, wellbeing is described in terms of self-actualization, proposing that true happiness is found in expressing virtue (Dewe & Cooper, 2012). The eudaimonist perspective views engagement in activities which foster human growth, such as autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness, as essential to wellbeing (Ryff & Keyes, 2015). The present study draws on research which proposes that a combination of both perspectives is more accurate, as workforce wellbeing can be viewed as a multidimensional phenomenon that encompasses both eudaimonic and hedonic aspects (Fisher, 2014). In the present study, wellbeing is conceptualized as the combination of feeling good (hedonism) and functioning well (eudaimonia) (Aked, Marks, Cordon, & Thompson, 2019). Wellbeing at work refers to a subjective perception of general satisfaction with and positive feelings toward work. It has also been suggested that conceptualizations of wellbeing at work and in general should include a component of social relationships, as this is a key component of an individual's positive experiences at work (Fisher, 2014). Looking at the both perspective and scholar's perception on the concept of wellbeing in this research study, we defined workforce wellbeing as psychological feelings of good, happiness, functioning well and the social relationship experienced at work that create employee satisfaction.

Conclusion

The core aim of administrators in today's organization is to ensure the desired results of the organization are achieved with minimum expenditure, time, money and other materials and above all the workforce. As administrative unit of the organization continues to seek ways that the organization can prosper and achieved maximum results with minimum resources, electronic record system offered that solution by enhancing administrative processes in record management and data storage while providing administrators with timely decision making, efficient workflow and workforce wellbeing. This was validated by the review of the study variables and relying on the results of the study's observations, we therefore, conclude that, there is a significant positive relationship between digital electronic record system and administrative efficiency of civil service in Delta State, Nigeria.

Suggestions

The following suggestions were made:

1. The government, agencies, corporations, institutions, etc. should enforce electronic digital systems with proper managerial staff management.
2. The government and all agencies should prioritize electronic communication systems to be functional in all ramifications
3. Government agencies should be practical in training in all staff that is responsible in the management in information technology management.

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