Effect of E-governance on the Performance of Civil Servants in Jigawa State. Nigeria

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Abstract: *E-governance is an emerging trend in organizations both public and private to ensure high level performance. The Civil Service has embraced it in other to heighten the performance of workers. This study therefore assessed the effect of e-governance on the performance of civil servants in Jigawa State. The population of the study is 4273 respondents while the sample size is 366 respondents which were obtained using Yamane's formula, however, only 352 were retrieved as valid and used for analysis. Data were collected through the use of structured questionnaire which were administered to the civil servants in the selected ministries. The study used inferential tools for data analysis. The hypotheses were tested using ANOVA analysis. The finding of the study revealed that e-governance has enhanced the skills of the civil servants in the performance of their statutory responsibilities. It has also positively enhanced official communication among civil servants in Jigawa state as well as positively impacted the administration salary in the state. Furthermore, the study established that e-governance has enhanced the payment and collection of salaries in Jigawa state. E-governance has enhanced the detection of fraud and monitoring of administration of salary in the state. Power supply is a major challenge on the implementation of e-Governance in Jigawa. The study concludes that E-governance positively affects the performance of civil servants in Jigawa State. The study recommends among others that the state government should deliberately educate the civil servants on ICT through seminars.*

Keywords*: e-Governance, Performance, Civil servants, Skills, Communications, Salary Administration*

Introduction

The emergence of e-Governance in Nigeria can be traced to the advent of democracy in 1999. The first real activity in this regard was the development of government websites. These efforts were uncoordinated and only a few agencies with the resources could establish online presence although the government continues to seek policies and strategies that will accelerate the deployment of the necessary infrastructure. In pursuance of this objective the government established the National Information Technology Development Agency, (NITDA) under the Ministry of Science and Technology (MOST) to champion the development of Information Technology (IT) in Nigeria and midwife implementation of the national IT policy. NITDA is also charged with the responsibility of implementing e-Governance initiatives using National e-Governance Strategy Limited, (NeGSt), a Public-Private-Partnership (PPP) as a special purpose vehicle (NITDA, 2001).

In recent times, some components of e-Governance have already commenced in the Nigerian Customs, the programme is a computerised customs management system which covers comprehensive, integrated customs information and foreign trade procedures, the Nigerian Immigration Service, computerization of Land and Certificate of Occupancy in the Federal Capital Territory Administration (FCTA). The payroll of some organizations are also being computerized i.e. (e-Payment), online checking of West Africa Examination Council

(WAEC), National Examination Council (NECO) and Joint Admission and Matriculation Board (JAMB) result as well as National Youth Service Corps (NYSC) postings are part of real time and cost effective services which are part of e-Governance.

Some States of Nigeria especially Jigawa State embraced the use of ICT in their governance process with the introduction of Galaxy Information Technology Telecommunication (GITT) in 2001 with aim of bringing the latest technology in digital communication to facilitate and deliver a range of quality Internet Protocol (IP) based on multimedia services.

Consequently, State Government has strategically established over 30 computer training centres across the state. The centres are highly equipped with cutting-edge ICT training and learning equipment, ranging from computer sets, networks, and other peripherals. Institute of Informatics was established in 2001, more than 7,000 students graduated and many of them are today either part of the emerging e-Government sector or part of entrepreneur's community setting up small ICT business outfits in the new Jigawa. Therefore this study aims to:

   i.   examine the implementation of e-Governance on skills of civil servants in Jigawa State;
   ii.   examine the effect of e-Governance on official communication in Jigawa State;
   iii. assess the effect of e-Governance on administration of salaries in Jigawa State; and,

LITERATURE REVIEW

Concept of e-Governance

The concept of electronic governance (e-Governance) is defined as the application of Information and Communication Technology (ICT) to the government processes to be Simple, Moral, Accountable, Responsive, and Transparent (SMART) governance (Heeks 2011). E-Governance, means 'electronic governance' is using information and communication technologies (ICTs) at various levels of the government and the public sector and beyond, for the purpose of enhancing governance (Bedi, Singh and Srivastava, 2001; Holmes, 2001; Okot-Uma, 2000). The UNESCO (2005) sees e-Governance as the public sector's use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective. E-Governance is defined as the, "application of electronic means in the interaction between government and citizens and government and businesses, as well as in internal government operations to simplify and improve democratic, government and business aspects of Governance." (Backus, 2001). According to Kettl (2002) "Governance" is a way of describing the links between government and its broader environment - political, social, and administrative." The application of electronic links means the interaction between government and citizens and government and businesses, as well as in internal government operations to simplify and improve democratic, government and business aspects of Governance.

e-Governance and Skills of Civil Servants
E-Governance has become an indispensable tool for workers empowerment, improvement, development and actualization of service. In terms of e-governance, ICTs and the internet imply modernized service delivery processes with regarding to sharing of data, business process redesign and human resources; both clerical staff and managers need to develop a new and

challenging set of skills, and apart from basic technical skills, general managers need an understanding of information management and the information society (Nasser et al, 2005).

Training; the basic purpose of training is to help employees build their skills which will increase their performance and ultimately it will lead towards greater organizational productivity. The need of training arises when top management changes its philosophy, values or way of operating. Training can also include career development activities to help employees make better choices about their careers. Training consists of on the job and off the job training. On the job training consists of some practical interface with workplace instrument and off the job training consists of seminars and schools etc. (Sallau, 2014). Training can be done through a company's intranet or through Internet, using a variety of multimedia such as audio, video conferencing and links to resources which offers a solution to remote learning. The advantages of this process are quite noticeable. First, its flexibility – one of characteristics appreciated by most employees allows learners to choose the time and place of study no matter when or where they are as long as they have internet connection. The flexibility in methods and content of courses also improve the quality and effectiveness of learning. Second, cost reductions (administrative costs, travel expenses, opportunity costs, instructional costs and the like) can be achieved in many ways, which promotes this training method among worldwide organizations. Finally, this is a strategy of talent attraction and retention because companies understand that one of employees' needs is to enhance knowledge and improve their competencies through self-study to get promoted in their career ladder (Elnaga & Imran 2013).

The Nigeria federal civil service officials are expected to perform their duties with political neutrality, anonymity and impartiality. The major roles of civil servants are in policy making, supportive in its national objectives and economic development. Efficiency is needed for civil servants at federal and states levels, since it measures the performance of tasks expected to be done. The introduction of office automation and information technology has assisted to strengthen skills and knowledge. According to Bhuiyan (2011) major computerization and infrastructure development in the public sector in state has been taking place to replace internal manual work processes by ICT-based automation. Similarly, the impact of computer education on the efficiency of civil servants in Nigeria cannot be over-emphasized. The civil servants need to be educated in ICT, so that the use of typewriters, filling of information on papers in cabinets, keeping of documents and letters in files are modernized through automation.

e-Governance and official Communication

Nwachukwu (2000) defines communication as a means through which the task and the resources needed to carry out an assignment, the roles and duties and the expected results are made known to the subordinates. Thus effective communication is therefore the transfer of message, followed by feedback, from the receiver to the sender, indicating an understanding of the message. Employee communication is the dissemination of information which is related to the daily performance of an employer's job and also important if the worker is expected to be an effective member of staff. It connotes a consideration of human beings as a vital resource (Van-deer 2016). Myers and Avison (2002) defined organizational communication as "the central binding force that permits coordination among people and thus allows for organized behaviour," In many ways, organizations have evolved in directions that make the latter view more appropriate. Changes confronting organizations and the associated changes in organizational forms have made organizational communication increasingly important to overall organizational functioning. Information and Communication Technology is said to be the foundation for sound communication, communication helps greater coordination and interaction among workers,

good communication helps in motivating the workers, and communication helps in establishing links between different hierarchies and functions of management, communication clears confusion, misunderstanding and delays in administration, it helps in achieving maximum productivity with minimum cost, it helps in building genuine human relation. Communication is not only an essential aspect of these recent organizational changes, but effective communication can be seen as the foundation of modern organizations (Okot-Uma, 2001)

Effective communication between leaders and employees is critically important for the potential success of a company. Leaders need to enact strategies to improve communication that could lead to positive work consequences (Okot-Uma,2001), ICTs improves in supervisor-subordinate communication will assist organizations toward the goal of managing diversity by promoting equality and integration in the workplace. Effective communication succeeds when employees support the leader and the organization if there is a belief that employees' efforts will be rewarded. Leadership succeeds when initiating response or responding to change and leadership is inextricably linked to the credibility of those leading. Constituents will become willingly involved to the extent that they believe in those sponsoring the change (Van-der, 2002).

ICT allows a government's internal and external communication to gain speed, precision, simplicity, outreach and networking capacity, which can then be converted into cost reductions and increased effectiveness - two features desirable for all government operations, but especially for public services. ICT also enables timelessness usefulness, transparency and accountability, as well as networked structures of public administration, information management and knowledge creation. In addition, it can equip people to participate in an inclusive political process that can produce well-informed public consent, which is, increasingly, the basis for the legitimacy of governments (Van-der, 2002). e-Government being facilitated by offers a host of transformation capabilities ranging from radically shrinking communications and information costs, maximizing speed, broadening reach, to eradicating distance Nkwe (2012)..

ICT has made sending of information from one source to the other easier and simple. The awareness and use of computer system can be found in almost every office due to the high standard of the communication network (Heeks 2004). The usefulness of computer to the society is in various forms, such as in health, government, military, business and education. Aribisala (2008) asserted that efficient management of personnel and other resources of Nigerian Armed Forces depend on the use of computer-data, on several defence related matters which are daily assembled by radars, solar, as well as other military and intelligence sources. These data are stored, processed and analysed to gain a proper understanding of detonation of explosive, land mines etc., through the use of remotely controlled computerized robots. In industry and technology, computer has a wide range of industrial application like Computer Aided Design (CAD) systems which are used to automate the production of design drawing and design change. It is also used to assist in the creation, modification analysis or optimization of a design. All these are carried out through communication system.

Harthony (1990) stated that communication system carries a mixture of voice, data and image signals that are used effectively as intelligent rods in communication system acting as switches, multiplexes, demulti-plexens protocol converters. Muhammad, et-al (2010) emphasized that the importance of computers in the exchange of electronic mail (e-mail) with other users, transfer of public domain software from another computer into another disk so that anybody can run the programme on the computer and hold conference with a number of other users. This is one of the major applications of computers in communication.

e-Governance and Administration of Civil Servants Salaries

Payments of salaries policies nowadays become one of the strongest weapons to attract and retain competent employees especially in the fierce war for talent. A good payment system, hence, helps the organization to achieve its strategic objective by having a positive impact on employees' loyalty, commitment and performance. e-payment is effecting payments from one end to another end through the medium of the computer without manual intervention beyond inputting the payment data, it is the ability to pay the suppliers, vendors and staff salaries electronically at the touch of a computer button. The Federal Government of Nigeria through its treasury circular ref. No TRY/A8 & B8 of 22nd October, 2008 directed that payments from all funds of the Federal Government of Nigeria be made electronically as from 1st January, 2009 in order to eliminate the un-acceptable delay in the payment of government transaction; minimize interaction between payees and payers who have roles to play in the payments; check corruption because transaction of government can easily be traced from one source to another, introduce and institutionalize financial probity in the activities of government. (Nwachukwu, 2015)

E-payment tools refer to web-based software tools which enable an organization to do a full package of rewarding tasks ranging from gathering, storing, manipulating to analyzing, utilizing and distributing payment data and information Nkwe (2012). Leveraging technology may help them to achieve such goals with less effort. First, payment data and information are now available online and easy to access anytime from anywhere – their office, home, on vacation, on the other side of the globe without support of IT staffs or sophisticated technology infrastructures. Such "round the-clock availability" of essential payment information has been appreciated by line managers and employees as well as managers who now believe that the part of burden to answer all kinds of payment related calls is relieved from their shoulders. Elnaga and Imran (2013) argued that e-governance can be used not only to inform and implement salary policies, but, more importantly, to tailor rewards and compensation to individual employees' needs. He concluded that in an attempt to win the global war for talent, firms rely on ICTs to create tailored payment systems that generate a bigger bang with individual employees.

The benefits of an electronic payment of salaries, which include: Processing cost reduction; a feature-rich electronic payment system lowers associate process cost and time by automatically initiating and processing payments; Minimize overdue payments: A best-in-class electronic payment system accelerates credit and collections by giving customers, collections groups and internal departments greater visibility into payment status; Simplify Dispute Management: With an electronic payment system, companies enjoy improved data accuracy and automated disbursement, receipt and payment processing to streamline vendor dispute management; Increased Compliance: An e-payment system makes it easier to track and monitor data to ensure adherence to complex compliance regulations and all business rules; enhanced security: An electronic payment system is highly secure, safeguarding cardholder data and preventing payment fraud better than paper-based payments can achieve; improved Workflow Efficiencies: Increased automation is a key feature of a robust electronic payment system, enabling less reliance on time-consuming and costly manual business processes; Greater Visibility into Financial Supply Chain: With access to reports and comprehensive corporate financial history, an electronic payment system gives management and other authorized users easy access to snapshots and detailed reports to improve decision-making and process efficiency (Jamshed, 2012)

Theoretical Framework
The New Public Administration Theory

This research, adopted the   New Public Administration theory because the theory is a reliable tool for achieving of greater efficiency in the activities of the state institutions. The New Public Management is characterized as a rational approach to manage the public sector. It relevant to the study effects of e-Governance on the performance of civil servants which is assessment efficiency of civil servants using ICTs in discharging his roles and responsibilities.

Precisely the cardinal doctrines of NPA are: Responsiveness: The administration should bring about certain internal as well as external changes so that public administration could be made more relevant to the social, economic, political and technological environment. For this to happen the administration has to be more flexible and adaptable to the various changes. Client Centricity: this means that the effectiveness of the administrator should be judged not only from the point of view of the government, but from that of the citizens. If the administrative actions did not improve the quality of life of citizens then they are not effective notwithstanding whatsoever rationality and efficiency they may have. Structural Changes: the new public administration approach calls for small, flexible and less hierarchical structures in administration so that the citizens' administration interface could become more flexible and comfortable. The organizational structure should be in with the socially relevant conditions. Multi-disciplinary in nature: knowledge from several disciplines and not just one dominating paradigm build the discipline of public administration. The political, social, economic, management and human relation approaches are needed to ensure the growth of discipline. Politics-Administration Dichotomy since administrators today are involved in policy formulation and policy implementation at all the stages. Dichotomy meaning "a division or contrast between two things that are or are represented as being opposed or entirely different". Awareness: Bring attention to the works of a public administration and the task that public administrators carry out for the community and for the government. Jobs of public administrators affect communities and mass amounts of people. The importance of the job should be highlighted.

Structure Change: Public Administration is moving is many different directions, it is more often called Public Management now. This is because the job is moving towards a direction of not only implementing policy to people but also managing policies as it trickles down through the law process, so that it is realistic for community's and the people in them. Jack of All Trades: the best public administrators tend to be someone who has knowledge in politics and law, but also has a hand in community functions. This allows for a smooth transition from policy to implementation. Change: With the changes in the world, the job of public administration has changed.

Methodology

Study was conducted in Jigawa State of Nigeria which has population of About 3.6 million people inhabit Jigawa State (Population Census 2006). Jigawa State Government has staff capacity 54, 050 as of October 2016 across 16 ministries, 30 boards and parastatals. It Government implemented many ICT strategic and projects. A sample three hundred and sixty six (366) respondents was drawn from a population of four thousand two hundred and seventy three (4,273) Civil servants of the selected Ministries Jigawa State, which is 4273 (State Civil service commission, 2017) using Taro Yamani. Data was obtained from the responses of the respondents through the use of structured questionnaire measured on a five point likert scale. Data obtained was analysed by Inferential Statistics, using the Statistical Packages for Social Sciences will be used in this regard.

Results and discussions

A total of three hundred and sixty-six (366) questionnaires were distributed to the respondents who are officials of government but three hundred and fifty-two (352) were retrieved as valid and used for data analysis.

Table 1: **ANOVA Summary on Skills of Civil Servants**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.636	3	.212	1.975	.117
Within Groups	37.353	16	.107		
Total	37.989	19			

Source: Field Survey, 2021

Decision: the calculated value is 1.975 while the critical (table) value is 3.88. Therefore null hypothesis is rejected because the calculated value is more than the table value. The study concludes that there is significant relationship between e-Governance and skills of civil servants in Jigawa State. The finding of the study from the hypothesis tested showed that there is significant relationship between e-Governance and skills of civil servants in Jigawa State. This is indicative of a very strong relationship between the implementation of e-governance and the skills of the civil servants in Jigawa state. This corroborates the study by Nasser et al, (2005) that both clerical staff and managers need to develop a new and challenging set of skills, and apart from basic technical skills, general managers need an understanding of information management and the information society. And that of study by Zambrano (2008) which showed that the application of e-governance has increase speed and reduces inaccuracies of the civil servants. However, the finding of the study in table 4.6 revealed with 312(88.6%) disagreed that Civil servants have not acquired skills of e-Governance which has reduced inaccuracies.

H0$_2$ There is no significant effect of e-Governance on official communication in Jigawa state.

Table 2: ANOVA Summary Table on e-governance and communication

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	7.781	3	2.594	18.755	.000
Within Groups	48.125	16	.138		
Total	55.906	19			

Source: Field Survey, 2021

Decision: the calculated value is 18.755 while the critical (table) value is 3.88. Therefore null hypothesis is rejected because the calculated value is higher than the table value. The study concludes that there is a significant effect of e-Governance on official communication in Jigawa state. The implication of the finding is that there is a e-governance has significant effect on the pattern and mode of communication among the civil servants in Jigawa state which

agrees with the finding of Egbule, Solomon, Konye, and Abel (2016) also discovered that there is a significant positive relationship between the use of Information and Communications Technology (ICT) and Employee service delivery.

Ho₃ **e-Governance has not significantly affected the administration of salaries in Jigawa state.**

Table 3: e-Governance and Salary Administration (Contingency Table III)

ANOVA Summary Table

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.544	3	3.848	12.115	.000
Within Groups	110.535	16	.318		
Total	122.080	19			

Source: Field Survey, 2021

Decision: the calculated value is 12.115 while the critical (table) value is 3.88. Therefore null hypothesis is rejected because the calculated value is greater than the table value. The study concludes that e-Governance has significantly affected the administration of salaries in Jigawa state. The implication of the finding is that e-governance has significant effect on salary administration in Jigawa state this, corroborates the work of Elnaga and Imran (2013) which argued that e-governance can be used not only to inform and implement salary policies, but, more importantly, to tailor rewards and compensation to individual employees' needs

Conclusions

Based on the findings of the study, it can be concluded that e-governance has enhanced the skills of the civil servants in the performance of their statutory responsibilities. It has also positively enhanced official communication among civil servants in Jigawa state as well as positively impacted the administration salary in the state.

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