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**THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)
IN PAYROLL OPERATIONS FOR POLYTECHNICS IN NIGERIA**

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The Role of Information and Communication Technology (ICT) in Payroll Operations for Polytechnics in Nigeria



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Abstract

Purpose: Payrolling of staff in polytechnics lays significance on prompt rewards and productivity. Payment of salary in polytechnics is a key to performance effectiveness, efficiency and service success. This work discusses the role of Information and communication technologies (ICT) in payroll operation for polytechnics in Nigeria.

Methodology: This research adopted qualitative method, it focus more on secondary date for analysis. The used of newspapers, journal, policy document and other relevant material was employed for the data collection.

Findings: Information and communication technologies (ICT) refer to several forms of information exchange between two or more computers through any of the several methods of interconnection. These technologies provide speedy, low-cost and convenient means of communication. The adoption of these technologies in polytechnics in Nigeria federal and state government have been found to have direct positive impact on the institutions efficiency and have led to more rapid acceleration of development in the country. Technology is transforming human resource (HR) practices and activities by improving their effectiveness in managing organizational resources.

Unique Contribution to Theory, Practice and Policy: The use of relevant technology in HR would increase organizational ability to meet new challenges such as globalization and increase of diversity in workplaces. Computerized payroll system is one of the technologies commonly used in HR and measured as the heart of HR activities. Utilization of Information Technology (IT) is now entered in a very good condition that can be used in every aspect of life. Utilization of good IT will generate benefits for its users in utilizing IT.

Keywords: *Role, Information, Communication Technologies (ICT), Payroll, Polytechnics, Nigeria.*

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INTRODUCTION

Today's World-wide technology has changed businesses all over the world with the use of computer which makes payment system as an operational network governed by laws, rules and standards that links bank accounts and provides the functionality of monetary exchange using bank deposits (Summers, 2012). Traditional payment systems are crossable instruments such as cheques and documentary credits such as letter of credits. With the emerged of computers and electronic communications, a large number of substitute electronic payment systems have arose. These comprise debit cards, credit cards, electronic funds transfers, direct credits, direct debits, internet banking and e-commerce payment systems. Some payments include credit mechanisms, but that is fundamentally a different feature of payment. Payment systems are used in lieu of presenting cash in local and world-wide transactions and comprise of a major service provided by banks and other financial institutions.

What makes it a "system" is that it employs cash replacements with the use of electronic money and other ICT related equipment in its operations. The ICT payment system is the substructure comprising of institutions, tools, rules, procedures, values and methodical means recognised to effect transfer of monetary values between parties clearing mutual responsibilities. Its technical usefulness determines the competence with which transactions in money are made in the economy and risk associated with its use (Bossone & Cirasino, 2001). Electronic Payment Systems (EPS) apart from their suitability and safety also have a substantial number of economic profits which include mobilizing savings and certifying most of the cash accessible in the country are with banks. This will make funds available to both corporate and individual borrowers. Furthermore, an electronic payment system has the ability to track individual spending; to enable the design of products by the banks. This evidence will be useful to the government when making decisions. EPS also have the capacity to reduce cash control and costs allied with printing manual payment instruments.

Nigeria payment system has remained predominantly cash-based for both positive and negative reasons: positive because of its instant convertibility to other forms of value without intermediation by any financial institution; and negative because of its anonymity, lack of audit trail and ease of stealing. The ICT electronic payment system was consequently introduced for government to astound with allegations of corruption in the financial system; worse in the public sector. The Federal Government of Nigeria through its treasury circular reference number TRY/A8 & B8/2008 of October 22, 2008 directed that payments from all funds be made electronically as from January 1, 2009. The rule has been condemned by all and sundry for lack of preparation, inadequacies and delay in the payment for goods and services (Asaolu *et al.*, 2011; Ogedebe & Babatunde, 2012).

Nevertheless, the researcher argued that ICT electronic payment systems comes with their own set of problems, such as heavyweight cost of installation, cost of training, system failure, time consuming, breaches of security, health dangers and the danger of hackers stealing data. Therefore, the purpose of this study is to discover the role of electronic payment systems on payroll operation in polytechnics. Globalisation and digitalisation have changed the way payments are done in the workplaces. Information and communication technology (ICT) is the lifeblood of this change. This amendment has rose in a new economy known as the knowledge economy. Knowledge is the most important asset in this economy; knowledge is what we sell and buy.

Lucchetti and Sterlacchini (2004) highlight the fact that the high growth rate in the US economy during the 1990s, which saw productivity and employment rise, was due to the early and fast adoption of ICT. ICT is the foundation on which the knowledge economy is based. Galloway and Mochrie (2005) substantiate the findings of Lucchetti and Sterlacchini that proper leverage of ICTs is a driver of economic growth, as does Handzic (2004): "Currently, at the forefront of organisational performance are the organisations which recognised that information, knowledge and their intelligent application are the essential factors of success in the new economy, and take advantage of information technology to ICT can fulfil a number of business needs such as strategic, operational or marketing needs, or a combination of all of them (Modimogale & Kroeze, 2011).

Rouse (2005) defined ICT as an umbrella that includes any communication device or submission surrounding: television, radio, cellular phones, computer and network hardware and software, satellite system as well as the various services and applications associated with them. Armstrong (2000) defined payroll as the list of employees by a company and the amount of money to be paid to each of them. In educational Institutions, payroll is the list of staff. Murray (2015) asserts that payroll is the distribution of pay check to employees each pay day and the financial records for employee wages/salaries, withholding deductions, bonuses, pay for time not worked and other items of employee paychecks.

Payroll is the most part of an action that is usually performed by institutions with employee. For this reason, there must be an efficient and effective way to make payment of staff work accurately. As a result of this, there is need for Information and Communication Technology to be a major tool of transformations in a modern society. A country without ICT is winking in dark. ICT is a tree that comprises any communication device which includes: radio, television, computers of various types, internets, networks etcetera. Information and communication Technology systems are very unique and flexible and can be made to perform a variety of different tasks. It helps to improve on the way we deal with information in all areas of our lives. ICT usage in the present day society is becoming so universal and people careful carefully think out methodical approach to computerize various processes that inspire confidence and guarantee unalloyed success in every endeavor of human life.

According to United States Department of Agriculture (2013), payroll system or sometimes known as personnel system is a full-service integrated system offering a full range of personnel and payroll processing using a database which linked many modular subsystems. The database consists of current and prior salary payment information, personnel actions, name and address information and time and attendance data. These records are maintained so that information can be accessed when needed. The system also interfaces with accounting systems and various other administrative systems, which facilitates reporting processes.

There are various benefits associated with the payroll system. It could compute pay for employees who are under many different pay plans (e.g. executives and shop floors) or various deductions such as EPF and SOCSO (Steven, 2004). The use of this system would also reduce processing times and downtime. In addition, it is easier to use, thus helping to improve staff efficiency. Furthermore, payroll system can help to reduced HR workload which payroll system can focus on core business, improved productivity (Mark et al, 2008). Payroll system can eliminate errors associated with manual payroll processing and has higher reliability.

Computerized payroll, on the other hand, is a standalone Windows-based system which has limited integrative functions.

METHODOLOGY

This research adopted qualitative method, it focus more on secondary date for analysis. The used of newspapers, journal, policy document and other relevant material was employed for the data collection.

Statement of the Problem

For a long time, payroll fraud has been difficult to deal with at the federal, state and local government levels. The problem of payroll fraud is now a national crisis and a vast drain on the nation's economy. The problem is so big, dangerous and rooted in the Nigeria bureaucracy that the nation is losing billions of Naira at all levels of government (Oseloka, 2016). Government of Nigeria does not have the precise number of civil servants and her budget is always an estimate. This has produced some ambiguities, whereby some institutions budget more than they requires, and use the excess for some other things other than payment of salary and stipends. The problem of payroll fraud is far more rampant in the public service bureaucracy and less so in the organized private sector. This situation awakened government interest to ascertain the authentic workforce through several implementation such as biometrics screening and personal verification (Oseloka, 2016).

Objectives of Study

The main objective of this work is to examine the role of ICT on payroll operation in Nigerian polytechnics.

- i. To determine whether the use of ICT has reduced fraud in payroll operations of polytechnics.
- ii. To examine the role of ICT to timely and regular payment of salary.
- iii. To determine the role of electronic transfer system on payroll fraud prevention

Research Questions

- i. To what extent has the contribution of ICT reduced fraud in payroll system of polytechnics in Nigerian?
- ii. To what extent has the use of ICT play a role to the timely/regular payment of salaries?
- iii. To what extent does electronic transfer system also play a role to payroll fraud prevention in Nigerian polytechnics?

Conceptual Framework

Definition of ICT Ritchie and Brindley (2005) define ICT as "the array of primarily digital technologies designed to collect, organise, store, process and communicate information within and external to an organisation and. ICT covers technologies like the simple telephone, point-of-sale systems, stand-alone PCs, networked environments, Internet and credit card facilities.

The importance of payroll cannot be overstated. Payroll is an integral part of all organization. The payroll department is not only responsible for employee's salary compensation but, it also plays a vital role in protecting the company's reputation by ensuring compliance with various legislations. The Importance of payroll according to G Team in payroll (2015) includes:

Morale of employees: This is a very important aspect of payroll is its impact on the morale of the employees. The employees in an organisation need to feel assured that they can be paid on a consistent and timely basis. Late and inaccurate payroll might cause employees to question the financial stability of the organization. This might compromise on the work climate within the organization, thereby resulting in underperformance and ignorant behaviour toward the organization.

Compensation package: Payroll allows an employee to feel his net worth within the organization. An employee's total compensation such as salary, bonuses and benefit are incorporated into payroll. Based on annual performance evaluation, employees are typically rewarded with a salary increase or a fat bonus. This might boost an employee's performance and also create a positive effect on the organization.

However In some parts of the world today, ICTs are major contributors to revolutionary changes in business, commerce and daily living. Ironically, there are yet other parts of the world, especially those lacking the capability to design, produce, use and maintain ICT components, that such impacts have been very minimal and in some cases non-existent. Nigeria, unfortunately falls into the latter category. It is unfortunate in the sense that the massive social and economic potentials of Nigeria, unlike other African countries, put her at an advantageous position among the countries in the former category, if utilized the enormous natural resources for meaningful development. The country's inability to do this had contributed vastly to her passive participation in the global information society. Nigeria today is a heavy consumer of ICT components without the capability to produce any.

Role of Payrolling Operation in ICT

Payrolling is defined as handwritten, multi-post method whereby entries of monthly earnings and deductions from personal payment cards are pay rolled in duplicate (Jibrin, Ejura and Augustina, 2015). Roost (2009) view that payroll system involves everything that has to do with the payment of employees and the filing to employment taxes. This contains keeping track of hours, calculating wages, withholding taxes and other deductions, printing, delivering cheques and payment of employment taxes to the government. Irish Times (2002) defined payroll system as a system whereby workers are being paid according to their level of productivity.

According to Lindblad (2015), a payroll system calculates the whole money an employer owes employees based on factors such as the time they worked, their hourly wages or salaries and whether they took leave or holiday time during the pay period. The system alters gross pay by calculating and subtracting taxes and other withholding amounts. A payroll system also processes tax information and helps to comply with tax obligations. Computerized payroll is a stand-alone windows based system which has limited integrative function. Computerized payroll system is the process of normal payroll tasks via a computerized system rather than using manual. Computerized payroll system performs the same functions that manual methods of payroll do in a more sophisticated way

Payroll System and Computerized

Payroll According to United States Department of Agriculture (2013), payroll system or sometimes known as personnel system is a full-service integrated system offering a full range of personnel and payroll processing using a database which linked many modular subsystems.

The database consists of current and prior salary payment information, personnel actions, name and address information, and time and attendance data. These records are maintained so that information can be accessed when needed. The system also interfaces with accounting systems and various other administrative systems, which facilitates reporting processes.

There are various benefits associated with the payroll system. It could compute pay for employees who are under many different pay plans (e.g. executives and shop floors) or various deductions such as EPF and SOCSO (Steven, 2004). The use of this system would also reduce processing times and downtime. In addition, it is easier to use, thus helping to improve staff efficiency. Furthermore, payroll system can help to reduced HR workload which payroll system can focus on core business, improved productivity (Mark et al, 2008). Payroll system can eliminate errors associated with manual payroll processing and has higher reliability. Computerized payroll, on the other hand, is a standalone Windows-based system which has limited integrative functions. Since the use of payroll system among SMEs in Malaysia has limited empirical evidence, this study focuses on the most basic technology available for human resource management which is computerized payroll.

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) announced by Davis in 1989 has been one of the utmost common models in clarifying individual technology acceptance. TAM assumes that PU (perceived usefulness), and perceived ease of use (PEU) are instrumental elements which influence technology acceptance. “Usefulness” is defined as the individual’s perception that using the new technology will enhance or improve her/his performance (Davis, 1989). In the context of this research, usefulness refers to the effectiveness and performance of computerized payroll system to provide detailed attendance reports to be used for salary payment. “Ease of use” is defined as the individual’s perception that using the new technology free of effort (Davis, 1989). The easier and more effortless a technology is, the more likely consumers intend to use this technology. In the context of this research, Perceived Ease of Use refers how easy the computerized Payroll system to be used.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The use of ICT in payroll should be embraced as it has a dual purpose or benefits. Modern technology in payroll makes transactions faster, easier and more accurate. More so, the automated payroll systems improve the calculations and accuracy of staff salaries. We however, revealed that the use of ICT reduced fraud in payroll system in tertiary institution and that the use of ICT has contributed (to the timely) regular payment of salaries in tertiary institutions.

Recommendations

From the findings of this study, the following recommendations are proffered;

- The study suggest that Government, Head of Ministries, Department or Units should take adequate steps and ensure full compliance in respect of BIN by every employee in the various Ministries in Nigeria

- The study also suggested that Nigerian Government should ensure that every employee receiving salary obtain a BVN in order to track financial transaction in the employee's salary account; and
- Government should ensure that accountants in charge of salary payment adhere strictly to electronic means of transferring employees' salaries and stop henceforth the use of manual payments.
- Government should ensure that the password controls to ICT database should not be accessed at all through the internet.
- Progressive Oracle-based training is necessary for the ICT staff to ensure a strong balance in the use of the platform.
- Awareness and coordination campaign be carried out to enlighten every institution, or departments on the benefits of using ICT in payroll operations of staff salaries.

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