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# Information and Communication Technology on Human Resource Performance in Nigeria Port Authority (NPA)

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Abstract: This study investigates information and communication technology and human resources performance in Nigeria Port Authority, Lagos State. To achieve the objectives of the study, a descriptive survey was used. Primary data was collected using a closed ended structured questionnaire. The population for this study comprised of the entire staffs of Nigeria Port Authority in Lagos State which was 455 while the sample size it'as 216, this was determined with the application of Taro Yamane formulae n Ni -N (e) 2 The questionnaire was administered personally by the researcher for data collection, out 216 questionnaires administered, 162 responses and only 150 responses was used for the analysis resulting in a response rare of 69 percent which was considered as a sufficient representation of the organization. The study findings revealed that majority of the respondents agreed theit there is a relationship between information and communication technology and human resources performance aid has higher strong positive ef/ct of .156 (.057), .667 (.000) and .771 (.000) at  $\approx = 0$  respectively. Based on the findings, the researcher recommends that the management of Nigeria Port Authority should provide internet facilities to all their employees irrespective of the department. This is to ensure smooth and effective information to their clients be at home and abroad. Thus enable them performs better on the job to meet customer service satisfactorily. The study also recommends that for Nigeria Ports Authority (NPA,) to remain profitable by enhancing their asset base through sensitization oft/ic customers, they should app/v both mobile and internet networking from the comfort of their seats at home in order to reduce longer queues usually seen at the port. As the results showed, higher profitability is positivly related to high rate of ICT use.

Keywords: human resources performance. information technology. Nigeria Port Authority

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#### INTRODUCTION

In this modern world of rapid high-technology *changes*, technological advancement will continue to accelerate the future. Technological advancement changes the organizational policies and strategies (Hampel & Mattinsons, 2009). In any organization most of challenges are generated by competition, advanced technology, enhancing employees' efficiency and rapid growth, new leadership and management (Madsen, Miller & John. 2005). Most of the research has shown that employee attitude and behaviours need to he develop for successful organizational performance (Bernerth, 2004).

The information and communication technology in the 2 1st century have revolutionized all profession worldwide including the Human Resources Management (HRM) (Buseni. 2013). Agbatogu (2011) says that technology has been a significant tool in almost all human endeavours. Jaiyeola (2007) argues that Information and Communication Technology is like an engine that could be used in so many ways. the same engine that makes the aircraft to move, could make a conveyor to convey finished product from production line to the storage location., the same could be used for automobile. grinding machine. etc. It is an implement in the hands of secretaries but enhances and improves its performance .Adedoyin (2010), Appab and Emeh (2012) argues that information technology have affected every profession in the last twenty years.

Information and Communication Technology (ICT) is clearly considered as a key growth area in this century specifically, in a dynamic and highly competitive business environment which requires utilizing advanced ICT tools to improve efficiency: cost effectiveness, and deliver high quality products and services to customers (Allen & Morton, 2004). Information and Communication Technology (ICT) is also considered as a tool of marketing, contacting customers and looking for possible customers, as well as presenting ICT services as distinguished potential services or customers (Werthner & Klein, 2005).

According to Uzoka (2002), information technology is the harnessing of electronic technology in its various forms to improve the operations and profitability of the business as a whole. It provides significant improvements with facilities such as word procession, communication facilities in the form of electronic mail, databases in relation to filling and data retrieval. Such advances improve business efficiency eliminating unnecessary delays in communication between routine filling and correspondence. Also Ofurum and Ogbonna. (2008) says information technology is the combination of computing, telecommunication and video techniques for the purpose of acquiring, processing, storing, and disseminating vocal, pictoral, textual and numerical information. The computing techniques provide the capacity for processing and storing of information: the telecommunicating techniques provide he capacity for communicating the information to users and the video techniques, the capability for high quality display of images.

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According to Applegate, Cash and Mlls, (2010) adoption of technology in the banking industry has enabled the employees/workers to provide better and improved services in relation to online banking which time is saving. E-banking enables customers to access services such as their bank accounts and the accompanying information on the products and services offered by banks using various avenues. This has e eliminated necessary services like sending letters, signing, use of faxes as well as use of telephone. This has enabled the workers to perform optimally.

The use of Information and Communication Technology further enhance the human resources operation speed, quality of communication, management timeliness, gaining the illusive competitive edge and product quality improvement in the industry in which the company is operating. They also established the advantages of the adoption of electronic banking whereby they noted that e-banking enables bank customers to have a diversity of advantages financially including among others, enhanced deposit rates, lowered transaction fees as well as promotional opportunities. Customers are also able to save time wasted in transactions especially when queuing up as well as the use of paper documents (Mutuku & Nvaribo. 2015).

#### **Statement of the Problem**

The rapid changes in information and communication technology causes already uncertain business environment to be even, more predictable. Organizations ability to identify the relevant information needed to make important decisions is crucial, since the access to data used to generate information for decision making is no longer restricted the manual systems of the organization. Today, the emergence of ICTs made it possible for organizations to record, synthesized, analyze and disseminate information quicker than only other time in history (Galliers, 2003). He further argued that data can be collected from different parts of the company and its external environment and brought together to provide relevant. Timely, concise and precise information at all levels of the organization to help it become more efficient, effective and competitive.

Also over the years organizations' generally have been accumulating heaps of information emanating from different departments and units within and outside the organizations. As a result of this scenario these organizations are saddled with the tasks of managing the information and records for the purpose of effective and efficient decision making and improve productivity in the organization. The large volumes of different varieties of information generated and disseminated almost on daily basis require more sophisticated devices in its managements.

Therefore, workers of different categories, even the less educated factory workers have benefited. Internet and multimedia telephone and other communication systems have 'provided opportunities to all categories of employees to receive and send information from and to anywhere in the world. This has provided access to technical and non technical solution to their individual and organizational problems and increase their efficiency and effectiveness (Dauda & Akingbade. 2011). Engineers, technologist, technicians, craftsmen and artisan now use internet to search for

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solution. tools and materials that may help to improve performance and solve problems which have increased individual and team performance in many organization (Dauda & Akinghade. 2011). Thus scanty studies on information and communication technology and human resources performance have been conducted in service providing organizations such as Banks, Insurance and Marketing organizations'. Therefore, this study is to examine the **effect** of information and communication technology on human resources performance in Nigeria Port Authority (NPA).

# **Objective of the Study**

The main objective is to investigate if information and communication technology have effect on human resources performance in the public sector using Nigeria Port Authority NPA) as the study area.

The specific objectives are .as follows:

- i. To examine if internet usage have effect on quality service in Nigeria Port Authority
- **ii.** To determine if the use of ICT as Operational application affects employee jab satisfaction in Nigeria Port Authority
- **iii.** To investigate if the use of ICT as Informational application affects employee efficiency in Nigeria Port Authority.

# **Research Question**

- i. Does the use of internet usage ha e effect on quality service in Nigeria Port Authority?
- **ii.** To what extent does the use of ICT as Operational application have effect on employee job satiation in Nigeria Port Authority?
- **iii.** How the use at IC I as Informational application does have effect on employ cc efficiency in Nigeria Port Authority?

#### **Research Hypotheses**

Hypothesis One:

**Ho:** Internet usage has no effect on quality service in Nigeria Port Authority.

**Hi:** Internet usage has effect on quality service in Nigeria Port Authority.

Hypothesis Two:

**Ho:** The use of ICT as Operational application does not have effects on employee job satisfaction among Nigeria Port Authority workers.

**Hi.** The use of ICT as Operational application does have effects on employee job satisfaction among Nigeria Port Authority workers.

Hypothesis Three:

**Ho:** The use of ICT as Informational application does not have effect on employ efficiency in Nigeria Port Authority.

**Hi:** The uses of ICT informational applications have effect on employ efficiency in Authority Port Authority.

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#### Significance of the Study

This research study has a great significance because it focuses of information and communication technology and human resources performance in Nigeria Port Authority in Lagos state. This study is going to contribute to literature since scanty work has been done in this field. Hence the outcome of this study can be used as a material **to** develop other literature while the material can be dropped in the department and school library to be used for further studies.

The finding of the study can also be of immense benefit to researchers (students and lecturer) who may want to embark research on related topic of this nature as the findings of this study can be useful or used as a material for further studies.

This study helps to policy makers in organizations' both private and public organizations' in state in particular and Nigeria in general in the process of developing or making policy concerning how information and communication technology usage in the organization, the findings of this study can be used as a guide in the process to develop a robust policy that will affect the organisation positively.

#### **Scope and Limitation of the Study**

This study focuses and covers Information and Communication Technology and Human Recourses Performance in Nigeria Port Authority (NPA) in Lagos state. The study was limited in the following ways:

- 1. The study is limited as it focused only on the use of Information and Communication Technology and Human Resources Performance in the Public Sector rather than focusing on both private and public sectors of the economy.
- 2. The time allotted to cam out this study is not enough for the researcher to conduct a thorough studs
- **3.** Another limitation to carrying out the study is finance. Because the researcher being a student does not have enough money to be patronizing the study area (Nigeria. Port Authority, Apapa, Lagos). It concentrates on collecting the questionnaires as she distribute and this can makes the respondent not to be objective in responding to the questionnaires.
- **4.** Uncooperative attitude of most respondent and organisations responding to the questionnaire distributed to them may also constitute a limitation to carrying out an objective and quality research study.

#### LITERATURE REVIEW

The Concept of Information and Communication Technology Information technology is the combination of computing, telecommunication and and video techniques for the purpose of acquiring, processing, storing, and disseminating vocal, periodical textual and numerical information. Uzoka (2002) defined information technology as the harnessing

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of electronic technology in its various forms to improve the operations and profitability of the business as a whole.

Nemine and Torunarigha (2010) also stressed that technology is the systematic application of scientific knowledge in order to achieve practical results. It entails a combination of different approaches to solve a problem. It implies that technology all about methods and the way people apply them in order to get results. According to Anujeonye Information and Communication Technology (ICT) is classified under two categories of software are scientist and hardware engineer which consist of software development system programming system maintenance and repair, system network engineering project management system network engineering project management system analysis, system administration management enterprise resource planning, database administration, management information system intranet applications web designing multimedia technologies etc (Anueonye, 2008).

Information and communication Technology (ICT) is a term with different meaning and been several defined in the literature. Some scholars see it as a term that compasses a lot of activities involving the acquisition storage, processing and dissemination of information through the use of appropriate software and hardware designed facilities liar that purpose. For instance, according to Bature (2007), information Communication Technologies are those technologies that provide access Information through telecommunications ICT is an integrated system that incorporates the technology and infrastructure required to store, manipulate deliver and transmit information, the legal and economic institutions required to regulate ICT access and usage and the social and interpersonal structures which allow information to ne shared facilitate access to the ICT infrastructure, and through which innovation takes place (Wamgwe 2007). To Olasanmi, Ayoola and Karcem (2012), ICT is seen a computer system, telecommunication, networks and multi-media application that enhances Knowledge for the execution of given task which entails skills and processes necessary for carrying out activities in a given context.

#### **Application of ICT in Management of Information Resources**

The great advances being made in the field of Information communication technology, there are great possibilities for the application of ICT in organisation, in this direction there is room for ICT application in the company's environment in many ways including the following

#### **ICT anti Electronic Collection Management**

According to Cotter and Koehier (2002) observed that the ICT and electronic library has four attributes

- a) Management of resources with a computer
- b) The ability' to link the information provider with the information seeker in electronic channels

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- c) The ability for staff to intervene in the electronic transaction when requester by the information seeker and
- d) The ability to store, organises and transmits information to the information seeker in electronic channel An electronic organisation utilizes both electronic information resources and electronic means to manage and move those resources. There are sound reasons for us to consider collection management or as Ashocroft and Waits (2005) suggest that content management in a networked environment, bring more than organisation and intermediation to information collection. They also bring authority inclusion in a collection implies pertinence appropriateness/

#### **ICT and Records Management**

According to international Records Management Trust (n.d) observed that well managed records are a foundation for goal organisation services: they serve both to document the policies transaction and activities of the business and to provide a trusted source of information to support decision—making and accountability. Many firms operations that traditionally depended on information derived from paper records have become partially or wholly automated. As firms migrates to an on-line environment, records in electronic form are providing the basis for conducting business, serving the users, managing resources measuring progress and outcomes and protecting their own a and others' rights. Records management is becoming increasingly dependent on technology it is important therefore to have objective means of assessing the strengths and weaknesses of records system and determining whether they are capable of capturing, maintaining and providing access to records over time.

Firms are now more dependent on information in electronic systems to carry out their day –to- day functions und make decisions common examples include system designed for Human resource management, online public access. Institutional repository if resources and Services. Licensing and ordering, Registration and Benefit deliver. New technology is making significant contributions to improving organisation resources and service achieving development goals etc.

#### ICE, the Internet and Web Development

The Internet and web development provide efficiency and unprecedented flexibility gains. Organizations in proved in deploying it. The Internet-based information technologies structure helps in sharing information through the telecommunication network and used auth customers' tine members of the organization (Dawodu & Osondu. 2013).

#### **Telecommuting**

Telecommuting has to do with working outside the usual workplace. for instance, at home. and communicating with it by way of computer—based technology, Professionally workers tear that being off - site and out - of - sight will hinder opportunities for promotions and company's rewards, socially workers often say that they miss miss the informal interaction they acquires by

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being around colleagues. At a quick look. It appears that the fear of isolation may reduce telecommuting frequency rather than frequency limiting (Claendran, Harrison. & Delaney-Klinger. 2015).

Telecommuting virtual work, telework, remote work, work from home=, the form and terminology varies, but in a technologically enabled, global business environment the practice of working away from the office is commonplace. Telecommuting in particular has been defined as a work practice whereby employees substitute some or all of their regular working hour to work away from the office, often at home, performing work tasks and commentating with others win technological means (Allen, Golden & Shockley 2015). Happily for those who use and / or support voluntary telecommuting arrangement there is growing evidence of positive links to outcomes of prime interest to organizations including employees' performance and intent to remain with the organization (Gajendran, et al. 2015). Although there is general support for links to positive performance decreased turnover outcomes like increased and intent less known regarding the mechanisms of these relationships. Autonomy appears to be important partial mediator for attitudinal and behavioural outcomes (Gajendran & Harrison. 2007).

#### **Teleconferencing**

Technology has enabled the virtual workplace but now it must also support increased communications and partnership across virtual teams, inside and outside the firm. The need for better teamwork is fostering new forms of communication. Advanced communications tools such as integrated Web, audio and video conferencing let workers share information and connect with each other across geographic and cultural boundaries using a single interface. Further, employees can restart their cognitive load when the surf the web every few minutes and subsequently be more productive Coker (2011). Anandarajan, Simmers & Igbaria (2000) found that Internet usage allows for instant access to information, however, at the same time it causes the need for re-work, wading through extraneous material and longer time for task completion. The authors found that Internet usage created in efficiency due to employees wasting time. Castelis suggested that ICTs have evolved the workplace to a setting of timeless time and a space of flow s. This means that new ICT break down logical sequences of time and making physical distances seem closer (Castells. 2011). With these workplace changes: information can be easily transmitted from one point to another and employees can always he in contact and he reached (Castells, 2011).

#### **Electronic Mail**

The digital landscape has changed nowadays, there is a wide range of' digital social media available to individuals to communicate personally and professionally, although mail ma he seen to have been overtaken by for *instance*. Twittr. Facebook and blogs it still plays a basic role in the communication network of a great number of workplace (Wailer & Ragsdell, 2012). Hair, Ramse and Renaud (2007) contended that there proof that e-mail put forth a powerful grasp over its users,

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causing users to experience stress as :t direct result of e-mail-related pressure. The recommended that the habitual use of e-mail is a form of self-imposed stress. It appears that the employees behaviour is its caused "their point of views, which compel them to check and deal with incoming e-mails always" (Flair. et al. 2007).

# Resourcing

Resourcing encompasses the deployment and manipulation of human resources, financial resources; technological resources and natural resources (Micrusoft Encarta, 2009). The importance of human resources in and organization cannot be overemphasized. In fact the ability of an organization to achieve its goals depends on the caliber of its human resources and more importantly, on how effectively they are managed (Ezeani, 2002) There is no doubt that the ability of any organization or society its goals to achieve its goals depends to a large extent on the caliber, organization and motivation of its human resources (Agalamanyi, Okechukwu & Ikechukwu, 2012).

**Necessity** of Information Using and Communication' **Technology** for over two decades information that been seen as a valuable resources with other factors of production. Following the expansion of business activities, globalization and rapid changes in the' environment, information is considered as a strategic factor to the extent that today it is seen as a powerful tool in dealing with en environmental problem and challenges as well as a tool that makes proper use of opportunities (Baloh and Trkman, 2013). Accordingly, the establishment of an appropriate information system using ICT for collecting, processing and storing of data is of vital importance. Although ICT and the use of computer have never replaced for human decision making their power to help managers and employees to make the right decisions using accurate information and speeding up tasks cannot he neglected. Many organizations have realized the importance information technology and its impact on speeding up and accurate performance of tasks and increasing customer satisfaction, support systems, managers' decision-making and especially the organization's effectiveness. Such awareness has caused most organization to quickly move towards the application of IT (Yardley, 2005).

# **Information and Communication Technology and Business Processes**

The recent information technology developments have enormous implications on the operation, structure and strategy of organisations. According to Evans and Warker (2007) the competitiveness of future economies will, to a great extent, depend both on the development and application of these technologies. The proliferation of the World Wide Web forced most organizanons to rethink the way they do business and how they can reengineer their business processes As businesses can now interact more efficiently, competent business become digital and networked facing a whole range of' fresh opportunities and challenges (Dennis. 2007).

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According to Boeij, Chaffey, Greasley and Hickie (2003) technology has already revolutionized a wide of functions including business functions. external environment monitoring, communicating with partners and with consumers at large, Clear strategic goals and commitment arc prerequisites for the development of an appropriate e-commerce strategy and the development of web sites and other technological solutions. The emergent mobile technologies and mobile commerce are expected to change drastically a number of industries and to three organisations to reconsider their strategic management (Evans & Wurster, 2007).

#### **Applications** of **ICT** in **Organizations**

ICT has different applications in organizations and most scholars have classified these implications into two categories: operational and informational use.

- a) Operational Application the use of IT in a profession is called "operational application. Preparing payroll lists, issuing personnel orders forecasting inventory planning for production planning, distribution and allocation of labor. Industrial costing and other specialized tasks are included in the operational applications of information technology, The use of computers for such applications results in automation of tasks and administrative affairs so the tasks are performed more economically and rapidly (Baloh. & I Irkman. 2013).
- b) Informational **Application:** Informational use of IT will facilitate the collection. storage, and dissemination of information. In other words, the operational use if computers and information and communication technology serves as a mechanical tool to change inputs into output. While the informational use is seen as element and a major factor in collecting, transferring and disseminating information (Strohmeier, 2013).

# **Information Communication Technology and Internal Controls**

Information Technology influences internal control (that is. the environment risk activities, information. communication and monitoring) and it provides guidelines and best practices to he used in assessing methods obtainable to enable the effective performance of internal auditing tasks. Mutuku and Nyaribo (2005) on the evolution of auditing discussed the advancement of technology which in turn adds to the standards of internal control and IT auditing. They also identified the pressure internal auditors would potentially experience in the era of globalization and drawbacks in an effort to being used organizations to improve performance, communication, motivate employee increase competitiveness, improve market dynamics and repositioning the company against its competitors facilitating entry into new marketed (Hagen. 2010).

#### Information and Communication Technology Ad Employee Training And Development

Training is the transfer of knowledge, skills, and attitudes (KSAs) through structured learning and follow up activities to solve job performance problems or fill indentified performance gaps (Olokoba, Abdullahi, & Omosidi 2014). Training and development are important aspects of developing human resources in an organization to improve performance (Ainabor. lhionkhan &

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Azeta. 2016). Training and development can he facilitated in an organization through information and communication technology; According to Ahmod et al cited in Sadiq (2007), the computer revolution is more than just a technological development: it may well change the society as radically as did the industrial revolution. Various innovations exist through the use of computer technology in lecture delivery. It facilitates visualization which consolidates the understanding of abstract processes. Information technology has also been used to facilitate co-operative learning process higher order thinking skills such as abstract thinking, applying theoretical construct in practical exercise teaching the capacity to express ideas logically and fluently and teaching collaborative problem-solving are all possible use of information technology (Ainahor, Ihionkhan & Azeta, 2016).

With the development of 1CT. lectures, seminars and symposia are made easy through well—focused communication strategies and instruments. Performance appraisal, reward and motivation in organizations become unrealizable without appropriate standard and objectives. Standard and objectives must he well set and structured (Onuh. 2008). This is a function of information and Communication Technology ICT can help facilitate and specify output-reward correlation. This according to Onah (2008) must be fair just and competitive for employees to be adequately motivated.

Socialization, which encompasses learning the organizational culture policies, responsibilities, expected behaviour and group relations, needs effective communication to facilitate learning. It therefore follows that instructions, mission statements goals and objectives must be clearly expressed and appropriate channels used in under in ensure that employees internalize organizational values (Ainahor. lhionkhan. & Azeta 2016).

#### **Human Resources Performance**

Individual within the Organizations are performing to best of their ability and developing their potential for improvement" is the employee work performance. Human resources performance is intimately linked to technological change and technological change and technological innovation (Rajakumaran, 2014). Technological change could be effectively managed through human resource joint approach. Individuals can be innovative and achieve great technological breakthrough but the complexities of modern technology require effective combination of different innovation based on different aspects of technology (Rajakumuran, 2014). Hence, human resources need to work a in individual and as team and combine their innovation for production of new technology, goods and service individual innovation is meaningful and workable when combined with that of others (Rajakumuran, 2014). The collective innovation is also impossible without individual innovation hence the two are separate but could only work in the production process when they are combined and effectively managed to produce result. (Burns & Stalker, 1961) (Cimoli & Dosi 1988). Managers need to provide enabling work environment that end only

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the human element that can check the abuse of technology which poses portent dangers to the survival of organisations, nations and humanity in general.

Many erroneously attribute all increase in productivity to technology. The contributions of the human element to organisation and national development is often not recognized or ignored. Technologies could only increase productivity or improve performance when combined effectively with other resources by human resource, or when technology is effectively, productively and ethically used (Dauda & Akingbade, 2011). Computer is the greatest invention that has influenced organizations, nations and human interactions in nearly all facets of life, nevertheless its performance and usefulness depend upon the knowledge, discrimination, intelligence and value of those who create them and make use of them. Man still has to define the problems, set objectives and lay down rules. He decides, analyse and judge (Dauda, & Akingbade. 2011).

#### **Dimensions of Human Resource Performance**

According to Imran. Maqbool and Shafique, (2014) they provide ten (10) great ways to look at the top dimensions of almost every ob and provide a great framework to guide and develop people in their roles. These include:

- 1. Quantity of work: The quantity or amount of work produced or the sheer volume of work completed by employees recognizes hard-working employees. Timely a delivery of work in terms of schedules, meeting deadlines. etc. recognizes employees who produce work on-time and meet deadlines. The quality of work produced in terms of standards errors, waste and rework recognizes employees who produce quality work which meets standards and work with few errors or mistakes.
- **2.** Use of Resources/Efficiency: Produces work in an efficient way in terms of using time, money, materials and other people's time well recognises employees who come in *on* budget with efficient use of time, materials and people.
- 3. Customer (External & Internal) Impact/Value: Work produced meets the expectations of customers (external or internal) recognises employees who do work that meets exceeds internal or external customer standards and. Expectations
- **4. Self-Reliance:** Recognises employees who produce work without the need for extensive supervision requires a reasonable level of support.
- **5. Department Contribution:** The employee is helpful to others in the department in getting work done and sets a tone of co-operation.
- **6. Productive Work Habits:** The employee has an overall work style which is effective and productive in terms of time management, setting priorities and following-up on commitments.
- 7. Adding Skills & Capabilities: The employee is continuously adding new capabilities in terms of skills, knowledge and attitude to get work done in new better ways and building for the future.

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**8. Alignment and Compliance:** The employee behaves in a way that is aligned with the values culture and mission of the organisation as well as common organizational practices and procedures.

This is a very useful way to consider performance and incorporating the ten (10) dimensions really adds value to the performance management process.

#### Information and Communication Technology and Human Resources Performance

New technology is not only essential for company or government, it is also important for nation. Companies cannot run with old technologies. Technology increase human resource performance when human or employees use technology) for the benefits of the organization and use with ethical values (lmran, Maqbool, & Shafique, 2014). Individual person cannot adopt technology easily and on the other side group of people can adopt technology easily). Computer is a greatest invention; it is useful only in that case when employees use it for their work. New technology can be used for both purposes for break or make purpose. Employee work load reduce through technological advancement. Number of employees to perform one task is also reduced (Imran, Maqbool, & Shafique. 2014). They further stated that companies require not much more employees to perform one job. Hunan resource effort is also reduced through technological advancement. Single employee can perform job without any hurdle.

Information and Communication Technology (ICI') can only lead to increased productivity or improve performance when combined with other resources effectively human resources or hen done effectively, and use technology productively and ethical (Nuskiya, 2018). Employee can more rapidly acquire new knowledge and further advancement competencies through training. Motivation of the employee has direct influence on technological advancement Employees performance is closely linked with technological advancement (Nuskiya, 2018). It can be managed by the employees and training should provide to the employee, it correct the errors, time of working and enable the employ to face the advance challenges Training provides a motivation for employees as well as it helps to do the challenges task in the work place (Muhammad, 2014).

#### **Negative Impact of Information And Communication Technology on Human Resources**

Certain weaknesses in ICT use have started to appear over time along with numerous advantages. These weaknesses can be viewed from the aspect of technology, information security and work conditions (Pesic and Lukic, 2014). The key negative consequences for employees are reflected via the influence of ICT on the work environment, The ICT work environment may cause alienation and frustration of employees as well as anxiety, stress fear of job loss, and similar.

Many employees who use ICT to a large extent in their work place may undergo a loss of identity and the effects of alienation due to a specific feature of ICT a lack of physical contact Communication is carried out via e-mail without physical presence and gives no possibility of viewing all the elements of non verbal communication, gesticulation, or perceiving the tone of

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voice (Scherinerhorn, Hunt & Osborn, 2015). The reaction of the collocutor is unspecified until the message is answered and even then there is no assurance that words have been chosen carefully and that the message replicates the essence (Mintzherg, 2015).

Information technology and the Internet enable employees to be mobile to work with co coworkers from a distance and in all time zone to do business in various forms and outside the traditional office environment (Dordevic, Boljanovic & Dobrijevic, 2014). In virtual organizations employees are geographical dislocated and work from their homes without and physical contact, often worried that they are less valued and appreciated, that is, that they are "out of sight out of mind" (McCloskey & Iglaria, 2003). Numerous researches regarding those who work from home (in virtual organizations) has indicated some of the aspects 01 the negative mindset which can be encountered. Primarily these are the feelings of isolation, a lack of appreciation and respect. Non-inclusion in all relevant decisions difficulties in keeping step with the change in the organization well as receiving feedback in real time.

Information anxiety represents the frustration of employees due to impossibility to keep with the enormous amounts of data. In human brain has a limited capacity for memorizing processing and applying information-psychologies claim that individuals cannot work concurrently with more than 5 to 9 information segments (Uwick, 1999). Computers and ICT have significantly spread the power of information processing, thus enabling organizations to overcome the problem of the limitations of the human mind Ulwick (1999), but at the same time they have led to information anxiety due to presence information from various social network smart phones, blogs and e-mail. Consequently various health problems can appear, such as insomnia, insufficient or poor, tension and apprehension, loss of concentration, frequent headaches etc. (Turban, Mclean & Wetherbe, 2003).

ICT can be important support for an organizations downsizing strategy, which has to extent impacted on the eliminating of certain work places and reducing number of organizational levels, These processes have caused the loss of some jobs working positions Duttun (2005) which is the greatest fear tor employee who fear that they may lose their jobs due to new technologies. On the other hand some employee may undergo stress at work due to an incapability to manage the technologies. Also employees who largely work with ICT may begin to feel the symptoms of digital Taylorism as they are aware that managers can monitor them constantly via e-mails telephones, logs, and files. etc. (Stanford. 2005).

A great problem for organizations and management is also using ICT for private during work hours which can lead to reduction of efficiency of employees (Caplan, 2006). Overcoming this problem via a limited or terminated access to certain ICT segments (especially private e-mails and social networks) can result in employee dissatisfaction.

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All these negative impacts of ICI are perceived only after its application and it is almost impossible to foresee them. However in practice there is often a total disregard of the negative impacts as the attention of the management is directed exclusively towards the advantages of ICT (Mintzrberg, 2015).

#### THEORETICAL REVIEW

This study adopted the technology Acceptance Model (FAM and Task- Technology Fit (TTF) Model to explain the interconnection between the major variables

#### **Technology Acceptance Model (TAM)**

Several studies ha e examined Technology Acceptance Model a' model to explain how people adopt and the e-learning (Selim 2003: Park, 2009). Technology Acceptance Model as originally proposed by Davis in 1986 and it has proven to be a theoretical model that can help in explain and predicting user behavior of incarnation technology Park, 2009). The functionality of this model is reinforced by two fundamental factors which are the perceived ease of use and the perceived usefulness. In comparison with the Theory of Reasoned Action (TRA). Technology Acceptance Model is more restrictive in the sense that information technology adoption is more mandatory and does not include their factor of subjective norm (Vogatzi 2015) in other words, while TRA proposes that the choice of the employee to use information and Communication Technology or not is optional, Technology Acceptance Model attaches more restrictive nature which makes it compulsory for employees to use Information and Communication Technology.

# Task-Technology Fit (TTF) Model

This model is a variation-extension of TAM. It depends on whether ICT is reliable. Compatible and appropriate for the job/task at hand (Lin and Chuang. 2008; Vogiatzi. 2015). It is a situation where a technology provides features and support that fits the requirements of a task. It can also be seen as the correspondence between task requirements, individual abilities and the functionality of the technology (Goodhue and Thompson. 1995). Task Technology Fit (TTF) Model is the degree or the extent to which a technology aids or assists an employee in performing his portfolio of tasks. The Task Technology Fit model further suggests that a better fit between the functionalities of a technology, task requirements and the abilities of individuals will lead to better performance (Shang et al, 2007).

#### **Empirical Review**

Dauda and Akingbade (2011) conducted a study to examine ho employee relation could be employed for technological change management. It also seeks to determine effective method of using technological innovation for improved performance in the Nigerian manufacturing industry. Two hypotheses were formulated to determine the relationship between technological change and employee skill; and between technological change employee performances. Question based on the hypotheses were formulated and questionnaires were distributed to select 30 manufacturing

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industry in beverages, textile, steel, cement and chemical industry in Nigeria. Their finding shows that employee relations do not have significant relationship with technological change. The recommend that employee relation should be considered in the management technological change for profitability, competitiveness and survival of the Nigerian Manufacturing industry.

Buseni (2013) examined the effects of information and communication technology on the performance of public sector secretaries' in Bayelsa State. Nigeria. The quality of secretaries available is a function of reliable and acceptable reporting framework that will improve productivity in the public sector. This can only be achieved through an effective e and efficient human resource development structure. To achieve the objective of the paper, primary and secondary data were used. The primary data was obtained through a well structured questionnaire administered to ninety five public sector secretaries' in Bayelsa State and the data obtained were analysed with econometric models of multiple regression and diagnostic test. The Cronbachs alphas model was used to verify the reliability' of the instrument. The study found that the usage of computer, telecommunication and video techniques positively and significantly related to the productivity (performance) of public sector secretaries' in Bayelsa State. Nigeria.

Irnran. Maqbool and Shafique (2014), carried out a study to check the impact of technological advancement on employee performance in banking sector. The paper was completed with the help of extensive literature on technological advancement and employee performance available on the databases and websites. Primary data has been used in this paper do check the impact of technological advancement on employees performance SPSS 16 software package 16 software packages is used to analyze the employee response and statistical techniques regression analysis us used to check the impact of technological advancement on employee performance. Total of 140 questionnaire has been distributed among different banks and out of which 100 were get completed and returned. After analyzing the data very efficiently, we find that technological advancement has significant impact on motivation and training of employees. Motivation has significant impact on employee performance but training has no significant impact on employee performance. Moreover as the con concerned for technological advancement and employee performance there is significant relationship among them.

# **Summary**

The chapter two of the study discussed various concepts in relations to information and communication technology and human resources performance. The literature reviewed so far shows that ICTs has greatly improved the functioning of all department of the organization' and its application within the organization are operational application and informational application,. Furthermore it is be worthwhile to gather information through website, online forums and social media for strategic and operational decision making purpose. Organization make use of social media, to promote their products and the social media sties used for this purpose include face book, Twitter, you tube etc. Moreover electronic newsletters, currency exchange rate, local news, etc are

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some of the benefits provided to customer through the implementation of ICTs. The application of ICT in an organisation plays significant roles which includes ICT facilitates communication and enchain of information, it enhances collaboration and networking among employees. It helps organisations to be Innovation through fusion of technologies with societies and businesses around the world etc. most important. Information and Communication Technology facilitates training and development of human resource to acquire skills for efficiency and productivity. The researcher adopted two theories to explain the position of Information and Communication technology and Human Resources Performance and he theories are Technology Acceptance Model (TAM) and Task Technology Fit Model (TTF). In order to keep in pace with the o modern on there is a need to provide continuous training to the managers and employees in relation to the modern technologies.

#### RESEARCH METHODOLOGY

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#### **Research Design**

This study adopts quantitative survey research design: a set of questionnaire was developed by the researcher and used to collect data from workers of Nigeria Authority (NPA), Apapa, in Lagos state.

#### **Population and Sample Size Determination**

The study will be conducted among all the workers of the Nigeria Port Authority (NPA. Apapa. Lagos not minding their status within the organisation which was put at four hundred and fifty five (455) as at the last time the researcher visited the firm's website. The sample size was determined using Yaro Yamane (1967) formula which is

$$n = \frac{N}{1 + N (e)^2}$$

Where

n =the sample size

 $egin{array}{llll} N & = & & the & Population \\ I & = & the & Constant \end{array}$ 

e = the degree of error expected 5%.

$$n = \frac{N}{1 + N (e)^{2}}$$

$$n = \frac{455}{1 + 455 (0.05)^{2}}$$

$$n = \frac{455}{1 + 455 (0.025)^{2}}$$

$$n = \frac{455}{1 + 1.1} = 2.1$$

$$n = \frac{455}{1 + 1.5}$$

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1 + 2.1 n = 216

The sample size for this study comprised of two hundred and sixteen (216) respondents j which are randomly selected among the employees of Nigeria Port Authority, Apapa Lagos.

# **Sampling Technique**

The respondents for this study were selected at various departments and cadre of workers in Nigeria Port Authority (NPA), Apapa, in Lagos state. Sampling was done randomly among the worker.

#### **Method of Data Collection**

The method of adopted in this study for data collection are primary and secondary's

**Primary Data:** Primary Data were collected through the use of questionnaire which was personally distributed by the researcher to the respondents

**Secondary Data:** Secondary data were collected through the journals, textbooks magazines, newspapers, the internet and every other material that are relevant for the success for the study.

#### **Research Instrument**

The research instrument' for his study was questionnaire. The questionnaire was divided into two (2) major sections, which covered the demographic characteristics of the respondents in the first section, which the second section focuses on the relevant questions on subject matter. Five Likert point scale method was used to design the questionnaire.

# Method of Data Analysis

For the purpose of data analysis frequency count and simple percentile method was used to analyze the demographic characteristics of the respondents and research questions. The hypotheses were analyzed and regression method where correlations was significant at the 0.01 level (2 – tailed). This was done using Statistical Package for Social Science (SPSS) 20.0.

#### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This section deals with presentation, analysis and interpretation of data collected from respondents who are employees of Nigeria Ports Authority NPA). Apapa, Lagos state. The data for this study were collected using a closed ended questionnaire. The questionnaires were distributed randomly to selected employees of the above mentioned public organisation. The data were collected, collated, analyzed and presented in two parts. Part one focused on the bio data of the respondents while part two focused on the test of hypotheses. Two hundred and sixteen (216) questionnaires were administered the respondents, one hundred and sixty two (162) were returned and only one hundred and fifty (150) were valid for the research analysis. In analyzing the data, frequency and percentage method and regression method were used in analyzing the formulated hypotheses. The return rate was 69% which is a fare representation used for the study.

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#### **PART ONE**

# **Analysis of Personal Data**

**Table 4.1: Sex Distribution of Respondents** 

Variable	Frequency	Percentages (%)		
Male	84	56		
Female	66	44		
Total	150	100		

Source: Field Research, August, 2019.

From table 4.1 above, the sex distribution shows that out of the 150 respondents, males represent 84 (56%). while the female respondents are 66 (44%). Based on the data above it was evidenced that majority of the respondents are males.

**Table 4.2: Marital Status of Respondents** 

<b>Marital Status</b>	Frequency	Percentage (%)
Single	72	48
Married	67	44.6
Divorced	4	2.7
Separated	7	4.7
Total	150	100

Source: Field Research, August. 2019.

From table 4.2 above, shows that singles respondents are 72 (48%), those respondents that are married are 67 (44.6%), the divorced respondents are 4 (2.7%) while those respondents that are separated are 7 (4.7%). This is an indication that majority of the respondents were single.

**Table 4.3 Age Range of Respondents** 

Age range (years)	Frequency	Percentage (%)
20 – 50 years	36	24
26 – 30 years	38	25.3
31 0 35 years	29	19.3
36 – 40 years	24	16
41 – 45 years	16	10.7
46 and above	7	4.7
Total	150	100

Source: Field Research, August, 2019.

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Table 4.3 above indicates the age distribution of the respondents between 20--25 ears are 36(24%). those between the ages of 25—30 years are 38 (25,3%). those between the ages of 31—35 years are 29(19.3%), 24 staffs are between 36 --40 years representing (16%). 16 respondents falls between the age of 41—45 years of age representing (10.7%). while those employees between the ages of 46 years and above are 7 representing (4.7%).

**Table 4.4 Departmental Composition of Respondents** 

Department	Frequency	Percentages (%)
Human resources	10	6.7
Account & Finance	12	8
Admin	19	12.7
Warehousing	44	29.3
Marketing	66	43.3
Total	150	100

Source: Field Research, August, 2019

Table 4.4 above indicates the departmental composition of the respondents. The respondents from human resources department are 10 (6.7%), those staffs from account and finance department are 12(8%), employees in admin department are 19 (12.7%), staffs working in the warehouse department are 44 representing (29.3%), while those staffs from marketing department are 65 representing (43.3%): This shows that all the departments within the organisation were represented.

**Table 4.5: Years of Experience of Respondents** 

Years of Experience	Frequency	Percentage (%)
0—5 years	52	34.7
6—10 years	54	36
11—15 years	20	13.3
16—20 years	16	10.7
21 years and above	8	5.3
Total	150	100

Source: Field Research, August, 2019.

From table 4.5: above, number of respondents that have 0—5 years of working experience are 52 representing (34.7°/o), 54 out of the respondents have 6—10 years of experience which representing (36%). 20 of the respondents have between 11-15 years of experience and they represents (13.3%), staffs that have between 16-20 'sears of experience are 16(10.7%) while those employees that have from 1 years and above working experience are 8 (5.3%). This indicates that majority of the respondents are experienced enough on the job to respond to the questionnaire.

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**Table 4.6: Cadre of Respondents** 

Cadre of Staff	Frequency	Percentage (%)
<b>Senior Level Management</b>	53	35.3
Senior Level Management	97	64.7
Total	150	100

Source: Field Research, August, 2019.

In table 4.6 above, it can be deduced that the cadre of the respondents shows that 53 of the total respondents are in senior level management and they represents (35.3 %L while the cadre of respondents from the junior level management are 964.7%). This is an indication that majority of the respondents are junior le\ci imanagement.

#### DATA ANALYSIS OF VARIABLES

Table 4.7: Internet Usage has effect on Quality Service in Nigeria Ports Authority

S/N	QUESTION	SA	A	U	D	SD	TOTAL
1	The use of ICT tools and services has significantly	69	44	17	10	10	150
	improved the data collection process by field officers	46	29.3	11.3	6.7	6.7	100%
2	Better management of products and services offered to	84	49	10	4	3	150
	client has been made possible through the use of	56	32.7	6.7	2.6	2	100%
	information and communication technology						
3	ICT Usage In NPA Has Improved Planning And	45	73	10	12	10	150
	Execution Activities Of Projects In Reaching Its	30	48.7	6.7	8	6.7	100%
	customers						
4	Internet usage has effect on quality service in Nigeria	55	78	17	-	-	150
	Port Authority.	36.7	52	11.3	-	-	100%
5	ICT application has facilitated better communication	76	65	9	-	-	150
	with its employees and partners in service delivery	50.7	43.3	6	-	-	100%

**Statement 1:** From statement one above. 113(75.3%) of the total respondents agree with the statement that the use of ICT tools and services has significantly. improved the data collection process by field officers, 17(11.3%) of the respondents were undecided. while 20(13.4°/o) disagree with the statement which means that the use of ICT tools and services has significantly improved the data collection process by field officers.

**Statement 2:** From statement two above. 133(88.7%) of the total respondents agree with the statement two above. 10(6.7%) of the respondents were undecided. while 7(4.6°o) disagree with the statement. This indicates that better management of products and services offered to client has been made possible through the use of information and communication technology.

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**Statement 3:** From statement two above. 118(78.7%) of the total respondents agree with statement three above. 10(6.7%) of the respondents were undecided. while 22(14.7%) disagree with the statement and this shows that ICT usage in NPA has improved planning and execution activities of projects in reaching its customers.

**Statement 4:** Statement four above shows that 133(88.7%) while 17(11.3%) of the I respondents were undecided about the statement which means that internet usage has effect on quality service in Nigeria Port Authority.

**Statement 5:** From statement five above. 141(94%) of the total respondents agree with I statement two above,  $9(6^{\circ} \text{ o})$  of the respondents were undecided about the statement I which means that ICT application has facilitated better communication with its employees and partners in service delivery.

Table 4.8: The use of ICT as Operational Application does have effects on Job Satisfaction

S/N	QUESTION	SA	A	U	D	SD	TOTAL
1	Information and communication technology usage has	63	77	-	5	5.	150
	improved target monitoring and reporting significantly	42	51.4	-	3.3	3.3	100%
2	The use of ICT tools has improved operational	75	75	-	-	-	150
	efficiency of employees.	50	50	-	-	-	100%
3	The use of ICT has facilitated better knowledge	45	81	14	5	5	150
	management for the organisation	30	54	9.4	3.3	3.3	100%
4	The use of ICT as operational application does have	68	55	7	10	10	150
	effect on employee job satisfaction among Nigeria Port	45.2	36.7	4.7	6.7	6.7	100%
	Authority workers						
5	Using information and communication technology has	65	66	13	3	3	150
	helped me to implement target schedules on time in	45.3	44	.87	2	2	100%
	NPA.						

Source: Field Research, August, 2019

**Statement 1:** From statement one above 140 (9.4%) of the total respondent agree with the above statement, while 10 (6.6%) disgrace with the statement in indicating that information and communication technology usage has improved target monitoring and reporting significantly **Statement** 2: The statement in table two above shows that 150,000% of the respondents agree with statement this shows that the use of ICT tools has improved operational efficiency of employees in NPA.

**Statement 3:** Statement three above shows that 126(84%) of the total respondents agree with statement three above, 14(9.4%) of the respondents were undecided. while 10(6.6%) disagree with the statement which means that the use of ICT has facilitated better knowledge management for the organisation.

**Statement 4:** From statement four above. 123(81.9%) of the total respondents agree with statement four above. 7(4.7%) of the respondents were undecided. while **20** (13,4%) disagree with

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the statement which means that the use of ICT as operational application does have effect on employee job satisfaction among Nigeria Port Authority workers.

**Statement 5:** From statement two above, 131(87.3%) of the total respondents agree with the statement above. 13(8.7%) of the respondents were undecided, while 6.4% disagree with the statement which indicates that using information and communication technology has helped the workers to implement target schedules on time in NPA.

Table 4.9: The use of ICT as Informational Application have effect on Employees Efficiency

S/N	QUESTION	SA	A	U	D	SD	TOTAL
1	The use of information technology has led to a more	64	54	10	12	10	150
	formalization of communication and procedures	42.6	36	6.7	8	6.7	100%
	among staffs and clientele in NPA.						
2	The uses of ICT as Informational applications have	94	41	-	7	8	150
	effect on employees' efficiency in Nigeria Port	64	27.3	-	4.7	5.3	100%
	Authority.						
3	The use of ICT data management systems has made the	96	53	1	-	-	150
	decision making process faster.	64	35.5	0.7	-	-	100%
4	The use of ICT has helped to improve productivity and	46	74	10	10	10	150
	increased flexibility of NPA staffs.	30.6	6.7	6.7	6.7	6.7	100%
5	Information and communication technology has me to	70	70	5	5	-	150
	meet up with task performance.	46.7	46.7	3.3	3.3	-	100%

Source: Field Research, August, 2019

**Statement 1:** Statement one above shows that 118(78.6%) of the total respondents agree with the statement that the use of information technology has led to a more formalization of communication and procedures among staffs and clientele in NPA.. 10(6.7%) of the respondents are undecided, while 22(14.7%) disagree with the statement which means that the use of information technology has led to a more formalization of communication and procedures among staffs and clientele in NPA..

**Statement** 2: From statement two above. 135(900/0) of the total respondents agree with statement two above, while 15(10%) disagree with the statement which indicates that the uses of ICT as Informational applications have effect on employees efficiency in NPA. **Statement 3:** From statement two above, 149(99.3%) of the total respondents agree with statement three above, while 1(0.7%) of the respondents were undecided about the statement which shows that the use of ICT data management systems has made the decision making process faster.

**Statement 4:** From statement two above, 120(79.9%) of the total respondents agree with statement four above. 10(6.7%) of the respondents were undecided. while 20 13.4°) disagree with the statement which means that the use of ICT has helped to improve productivity and increased flexibility of NPA staffs.

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**Statement 5:** From statement two above, I 140(93.4%) of the total respondents agree with statement five above. 5(3.3%) of the respondents were undecided. Mobile 5(3.3%) disagree with the statement which means that Information and communication technology has helped the workers to meet up with task performance.

# **Test of Hypotheses**

Hypothesis One: Table 4.7 was used for the analysis

Internet Usage has no effect on Quality Service in Nigeria Ports Authority Coefficients<sup>a</sup>

Model		Unstandardi Coefficients		Standardize d Coefficients	t	Sig.
		В	Std. Error	Beta		
	(Constant)	1.202	. 099		12.184	.000
1	Internet Usage	.002	001	. 156	1.921	.057

# a. Dependent Variable: Quality Service

The table above shows a summary of the regression result of the Ordinal Least Square using SPSS 20.0 software. From the table it can be deduced that the value of constant parameter is given as 1.202 and internet usage is ( $\beta$ =.156, P=.057> $\alpha$  0.05). Therefore, we accept null hypothesis and reject the alternative hypothesis. Thus, internet usage has no effect on quality of service in Nigeria Port Authority in Lagos state because P value is greater alpha.

The regression result above shows that internet usage is constant at .156: this implies that if the explanatory variable is held constant internet usage in Nigeria Ports Authority will increase by 15.6%.

Hypothesis Two: Table 4.8 was used for the analysis The use of ICT as Operational Application does have effects on Job Satisfaction

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardize d Coefficients	t	Sig.	
			В	Std. Error	Beta		
1	(Constant) ICT Operational	as	2.333	.103 .061	.667	22.760 10.881	.000
	Application		.007	.001		10.001	.000

a. Dependent Variable: Job Satisfaction

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The table above shows a summary of the regression result of the Ordinal Least Square using SPSS 20.0 software. From the table it can be deduced that the value of constant parameter is given as 2.333 and operational application is ( $\beta$ .667, 0.000 <  $\alpha$  0.05. Therefore, we accept alternate hypothesis and reject the null hypothesis. Hence the uses of ICT as operational application do have effects on job satisfaction in Nigeria Ports I Authority in Lagos state, The regression result above shows that ICT as operational application is constant at 2.333; this implies that if the explanatory variable is held constant, ICT as operational application in Nigeria Ports Authority will increase by 66.7%.

# Hypothesis Three: Table 4.7 was used for the analysis The use of ICT as Informational Application does not have effect on Employees Efficiency. Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardize d Coefficients	t	Sig.	
			В	Std. Error	Beta		
	(Constant)		2.356	.127		18.544	.000
1	ICT Informational Application	as	.416	.028	.771	14.731	.000

# a. Dependent Variable: Employees Efficiency

The table above shows a summary of the regression result of the Ordinal Least Square using SPSS 20.0 software. From the table it can be deduced that the value of constant -parameter is given as 2.356 and informational application is ( $\beta$ =.771. P=.000<  $\alpha$ =0.05 Therefore, we reject the null hypothesis and accept alternate hypothesis. Hence the uses *Gf* ICT as informational application do have effects on employee efficiency in Nigeria Ports Authority in Lagos state, The regression result above shows that ICT informational application is constant at 2.356; this implies that if the explanatory variable = is held constant, ICT as informational application in Nigeria Ports Authority will increase by 77.1%.

#### FINDINGS OF THE STUDY

From the finding of hypothesis one above, it was discovered that majority of the respondents strongly agreed with the statement that internet usage has effect on quality service in Nigeria Ports Authority in Lagos state. From the table it can be deduced that = the value of constant parameter is given as 1.202 and internet usage ( $\beta$ =156, P=.057>  $\alpha$ =0.05). Therefore, we reject alternate hypothesis and accept the null hypothesis. Hence, internet usage has no effect on quality service in Nigeria Ports Authority in Lagos state. This is in contradiction\ to the finding of Yardley, (2005) who states that many organizations have realized the importance of information technology and

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its impact on speeding up and accurate performance of tasks and increasing customer satisfaction, support systems, managers' decision-making, and especially the organization's effectiveness. Such awareness has caused most organizations to quickly move towards the application of ICT. Jawad, Muzaffar and Mahmood, (2014), and Samsudeen, Thelijjagoda, and Pulasinghe, (2015), asserts that in today's banks services are more than the customer expectation and they focus the customer oriented services. They are providing maximum services to facilitate their customer and capture maximum market. Today's customers are more demanding, they want quick response convenient service, multiple delivery channels, access to their account at any time anywhere and all these has been made possible through the use of ICT by these banks which has guaranteed customers satisfaction.

From the finding in hypothesis two above, it was discovered that majority of the respondents strongly agreed with the statement that the use of ICT as operational application does have effects on job satisfaction in Nigeria Ports Authority in Lagos state. From the table it can be deduced that the value of constant parameter is given as 2.333 and the use of ICT as operational application is  $(\beta=0.667, 0.000<\alpha 0.05)$ . Therefore we accept alternate hypothesis and reject the null hypothesis. Hence, the use of ICT as operational application does have effects on job satisfaction in Nigeria Ports Authority in Lagos state, This finding is in line with Baloh and Trkrnan, (2013) who finds that ICT usage as operational application involves preparing payroll lists, issuing personnel orders forecasting inventory, planning for production planning, distribution and allocation o: labour industrial costing, and other specialized tasks are included in the operational applications of information technology. They went further to states that the use of computers for such applications results in automation of tasks and administrative affairs so the tasks are performed more economically and rapidly (Baloh, & Trkman, 2013).

From the finding of hypothesis three above, it was discovered that majority of the respondents strongly agreed with the statement that the use of ICT as information application does have effects on employee efficiency in Nigeria Ports Authority in Lagos state. in Lagos state. From the table it can be deduced that the value of constant parameter is given as 2.356 and the use of ICT as informational application is ( $\beta$ =.771, 0.000<  $\alpha$  =0.05). Therefore, we accept alternate hypothesis and reject the null hypothesis. Hence the uses of ICT as informational application do have effects on employee efficiency in Nigeria Ports Authority in Lagos state. This finding is in line with the work of Nuskiya, (2018) whose finding show that Information and Communication Technology (ICT) can only lead to increased productivity or improve performance when combined with other resources effectively by human resources or when done effectively, and use technology 'productively and ethically. This finding is also supported by the findings of Tusuhira and Mulira (2004) who also in their study found that it became necessary for organisations to integrate ICT into organisational functions as well as their operations in order to increase efficiency, cost-effectiveness, and competitiveness. In the same vein, Dauda and Akingbade, (2011) makes it clear that staff who worked under both the old and new systems have expressed less positive attitudes

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about their jobs, and these attitudes circulated to the organization because it has become less committed and more likely to leave. So firms must motivate the employees to adopt the new technology and also organization gives incentive to employee for better performance.

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### **Summary**

This research study was conducted to understand information and communication technology on human resources performance in Nigeria Port Authority\ in Lagos This study can be of immense help as a guideline to organisations either private or public in informing and in promoting a more advanced communication technology workplace. Organization will be able to design policies or rules that can be a situation for both the employees and the organization in term of using internet operations and information purposes in the organisation. In addition, organization able to understand the importance of adopting and using information communication technology in improving human resources oh performance satisfaction, which will improves customer' service delivery and thus increasing thus organization profit.

#### **Conclusion**

The study examined information and communication technology on human resources performance in Nigeria Port Authority in Lagos State. The research evidenced that Information and Communication Technology has effect on human resources performance. The performance has been measured in many ways such as internet usage and customer service delivery, operational application of ICT and employee job satisfaction and informational application of ICT and employees efficiency. These are the hypotheses which were used to test for the relationships in the variables. The study concluded that information and communication technology has positively affects human resources performance in Nigeria Port Authority in Lagos State. The results show that, Internet usage correlates with customer service delivery. It has higher strong positive correlation that .156 (.057), .667 (.000) and .771 (.000) respectively. According to the analysis majority of employees agree with the tested hypotheses and then concluded that Information and communication technology has a strong and positive effect with human resources performance in Nigeria Ports Authority in Lagos state.

#### Recommendation

Based on the findings from the study, the following recommendations were made b the researcher and they are as follows;

i. Based on the findings of this study, the management of Nigeria Port Authority should provide internet facilities to all their employees' irrespective department. This is to ensure smooth and effective information to their clients home and abroad and to enable them performs better on the job to meet customer service satisfactorily.

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- ii. The researcher also recommends that due to the dynamics in the application of information technology, the management of Nigeria Ports Authority (NPA) should empower employees in terms of motivation to tap their skills in use of 1CT in order to enhance their strategies in offering quality services to their customers leading to their increased profitability and financial effectiveness.
- iii. The study recommends that for Nigeria Ports Authority (NPA) to remain profitable by enhancing their asset base through sensitization of the customers to apply both mobile and internet networking to be used at the comfort of their seats at home in order to reduce longer queues usually seen at the port. As the results showed, higher profitability is positively related to high rate of IT use.
- iv. The management and staffs of Nigeria Ports Authority (NPA) should increase their innovative capability due to the business dynamics which enables firths to attain a towering competitiveness level in both the state and global market. Therefore, how to support and maintain an improved novelty ability ought to be the key priority areas of key executives of the organisation as well as of the regulator) agents of the sector in order to enhance human resources performance
- **v.** The study also recommends that the management of Nigeria Ports Authority (NPA) ought to make it possible for staffs to be creative in their functions so as to have a competitive edge through creation of innovative services leading to increased financial performance and growth of the sector hence improved human resources performance.

#### **Suggestion for Further Studies**

This study sought to assess information and communication technology on human resource performance with special reference to Nigeria Ports Authority, Apapa, Lagos in attempting to bridge the gap in knowledge that existed. The study mainly focused on one public organization hence there is need to replicate the study using many other organisations both public and private so as to find out if there are any other factors information and communication technology on human resource performance

The study also suggested that more study should be done on challenges facing information and communication technology use in organizations in Nigeria.

#### REFERENCES

- Adedoyin, T. (2010). I.T. Productivity tools for managing the accounting function. *The Nigerian Accountant*. 43(4). 30-36.
- Adewoye J. O. and Obasan. K. A.. (2012). The impact of information technology (it) on human resource management (hrM): Empirical evidence from Nigeria banking sector. case study of selected banks from Lagos state and Oyo state in south west nigeria. *European Journal of Business and Ivlanugement* 4(6), 28 37.
- Agalamani, C. E., Okechukxvu, 1. E., and Ikechukwu, E. J. (2012). Adoption and application of information and communication technology) in human resources

Print ISSN: 2053-5686(Print),

Online ISSN: 2053-5694(Online)

Website: <a href="https://www.eajournals.org/">https://www.eajournals.org/</a>

- management: the university of Nigeria\ experience. *The Journal of Commerce*, 4(2). 12—29.
- Agbatogun. A. 0.. (2011). Computer-assisted programmed instruction revisited: a study I on teaching typewriting in Nigeria higher institution. *Asian Journal*\ of *Information Technology*, 10(2), 60-64.
- Ainbaor E.A. Ihionkhan G.E and Azeta W.I (2016) Information communication technology (ICT) for effect the human resource development in Nigeria. An Unpublished Material. 1-9.
- Allen. T. D.. Golden. T. D.. & Shockley. K. M. (2015). How effective is telecommuting?? Assessing the status of our scientific findings. *Psychological Science in the Public Interest*, 16(2), 40-68.
- Allen. T.. and Morton, M., (2004). *Information technology and the corporation of the 1990s*. New York: Oxford University Press.
- Anandarajan. M., Simmers, C., and Igbaria. M. (2000), An exploratory investigation of the antecedents and impact of Internet usage: An individual perspective. *Behaviour & Information Technology*, 19(1). 69-85.
- Anujeonve, N. C. (2008). Using communication technology (ICT) in secondary\ schools: prospects and challenges for the 21st century *Journal of Research Development*, 10(1). 180—181.
- Appah. F. and Erneh, Y. (2011). Information technology and internal auditors' activities in Nigeria. *Asian Journal of Information Technology*, 10(6). 20 1-208.
- Applegate. L., Cash. J. and Mills. D. Q. (2010), Information Technology and Tomorrows Manager.
   Ashocroft, L. and Watts, C. (2005). ICT skills for information professionals in developing countries: Perspective from a study of the electronic information environment in Nigeria. *In IFLA Journal: International federation of Library Associations and Institutions*, 3(1). 6 12.
- Bature. N. (2007). Business communication: an introductory text. Kaduna: Jo\ ce Publishers.
- Bernerth. J. (2004). Expanding our understanding of the change message. *Humun Resource Development Review*. 3(1), 36-52.
- Bocij. P.. Chaffey D.. Greaslev. A. and Hickie. S. (2003). *Business Information Systems: Technology. Development, and Management for the c-business.* 2nd ed., Financial Times Prentice Hall. Harlow.
- Buseni. J.. (2013). Effects of information and communication technology) on secretaries' performance in contemporary organisations in Bayelsa State. Nigeria. *Information and Knowledge Management*, 3 (5), 87-93.
- Buseni. J.. (2013). Effects of information and communication technology. on secretaries' performance in contemporary organizations in Bayelsa state. Nigeria. *Information and Knowledge Management*. 3(5). 87 93.
- Capian. S. (2006. Pruolematic internet use in the Workplace. In M Anadarajan. I Ecu and C. Simmers. *Te Internet and Workplace Transformation* (63-79) .New York: Armonk
- Castells. M. (2011). The rise of the network society: The information age: economy. Society, and culture. West Sussex: Wilev-Blackwell, I.

Print ISSN: 2053-5686(Print),

Online ISSN: 2053-5694(Online)

Website: <a href="https://www.eajournals.org/">https://www.eajournals.org/</a>

- Coker. B. L. S. (2011). Freedom to surf: the positive effects of workplace Internet leisure browsing. *New Technology, Work and Employment*, 26(3). 23 824.
- Cotter G. & Koehler W. (2002). Electronic collection management and electronic information services: Paper presented at the RTO JMC Lecture Series on "Electronic Information Management for PfP Nations" held in Vilnius Lithuania, 24-26, and published in RTO-E1Y-026. 3-12. 56
- Dauda, Y. A.. and Akingbade. W. A.. (2011). Technological change and empio cc performance in selected manufacturing industry in Lagos state of Nigeria. *Australian. Journal of Business and Management Research*, 1(5). 32-43.
- Dawodu. B. F.: Osondu. M. C. (2013). The effect of information and communication technology to the growth and development of banking activities in Nigeria. *Journal of Electronic and Communication Engineering*, 7, (3), 74-79.
- Dennis, F. (2007). Information systems for sustainable competitive advantage. Information and Technology. *MIS Quarterly*, 13 (3), 319—340.
- Diem, R. S. (2009). Information technology, adaption and innovation in nonprofit human serx ice organizations. *Journal of Technology in Human Services*, 27(3). 227-234..
- Dordevié Boljanovic. J.. Dobrijeviã. G. (2014). Utraganju *za* fleksibilnoscu: uticaj information teehnologja na savremeno radno okruzenje. *International\ Scientific Conference Impact of Internet on Business Activities s in Serbia and Worldwide* Belgrade: Singidunum University.
- Dutton. Vv. (2005). Continuity or transformation? social and technical perspectives on information and communication technologies. In W. Dutton, B. Kahin, K. O'Callaghan. and A Wyckoff. Transforming Enterprise, Te Economic and Social Implications of information Technology (13-23). Cambridge: Të MIT Press,
- Evans. P. and Wurster. T. (2007). Strategy and the New Economics of Information. *Harvard Business Review*. 70-82.
- Ezeani. E. O. (2005). *Fundamentals of public administration*. Enugu: Zik-Chuks Publishers. Snaap Press Ltd.
- Gajendran. R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-aral sis of psychological mediators and individual consequences. *Journal of Applied Psychology*', 92(6), 1524-1541.
- Gajendran. R. S.. Harrison. D. A.. & Delaney-Klinger, K, (2015). Are telecommuters remote good citizens? unpacking telecommuting's effects on performance via ideals and job resources" *Personnel Psychology*, 68(2), 353-393.
- Hagen. A.. (2010). Organizational performance and information technology inestment intensity in the insurance industry. *Organizational Science*. 2(3), 263-296.
- Hair, M.. Ramsey, J. and Renaud, K.V., (2007). The influence of self-esteem and locus *of* control on perceived e-mail-related stress", *Computers in Human Behaviour*, 23. (6) 2791-2803.
- Hampel, P.S. and Martinsons. M. G. (2009). Developing international organizational change theory using cases from china. *Journal of Human Relations*, 62(4). 45-55.

Print ISSN: 2053-5686(Print),

Online ISSN: 2053-5694(Online)

Website: <a href="https://www.eajournals.org/">https://www.eajournals.org/</a>

- IJlwick. A. (1999). Business strategy formulation: theorj% process, and the intellectual revolution. London: Quorum Books.
- Imran, M., Maqbool, N. & Shafique. H., (2014). Impact of technological advancement on employee performance in banking sector. *International Journal of Human Resource Studies*. 4(1). 57-70.
- Jawad 1 A., Muzaffar. A. and Mahrnood, K. H., (2014), Impact of Technology on Performance of Employees (A Case Study on Allied Bank Ltd, Pakistan). World Applied Sciences Journal 29 (2): 27 1-276.
- Madsen, S.R.. Miller, D. and John. C. R. (2005). Readiness for organizational change: do organizational commitment and social relationships in the workplace make a difference. *Human Resource Development Quarterly*, 1(2), 2 13-33.
- McCloskey, 1)., and Igbaria, M. (2003). Does out of sight mean out of mind? An empirical investigation of the career advancements prospects of virtual workers. *Information Resources Management Journal*, 16(2), 19-34,
- Mintzberg. H. (2015). Managing in the Digital Age: Over the Edge ax available on www.druckerforum.org.blog/p=928 accesed 23.03.2019
- Mutuku. M. N.. and N)aribo. W. M.. (2015). Effect of information echno(og' on employee productivity in selected banks in kenya. *Review of Contemporary Business Research*, 4, (1). 49-57.
- Nemine, E. B. and Torunarigha. Y. D. (2010). *Educational technology. Port* Harcourt: Harinsco Press.
- Nuskiya, A. F., (2018). The effect of information technology on employees performance in the banking industry in sri lanka. empirical study based on the banks in ampara district. *European Journal of Business and Management*, 10 (16). 47 52.
- Ofururn. C. O and Ogbonna. G. N. (2008). Accounting information sistems, Owerri: Bon Publication.
- Olasunmi, O.O.. Ayoola. T.. and Kareem. M.T. (2012). Evaluation of ICT use among women Entrepreneurs in the Nigerian government industr. *International Jourinil of Manage inent and Business Studies*. 3(2). 43-54.
- Olokoba, A Abdullahi. A, M. and Omosidi. S. A., (2014). Impact of **information** communication technology (ICT) on the management and performance of secondary school teachers in Kwara state. Nigeria. *International Journal of Education Learning and Development*, 2 (3). 60-67.
- Onah. F. O. (2008); *Human resource management ('2nd Edition,), Enugu:* John Jacob Classic Publishers Ltd.
- Pesic V.. and Lukië. J. (2014). The negative implications of information and communication technology: technical safety and social aspect. Jr *international Symposium Engineering Management and Competitiveness* Zrenjanin: technical faculty Mihajlo Pupin.
- Porter. M. E.. (2001). How information gives you competitive advantage. *Harvard Business Review*. July-August. *63(4)*, 149-160.

Print ISSN: 2053-5686(Print),

Online ISSN: 2053-5694(Online)

Website: <a href="https://www.eajournals.org/">https://www.eajournals.org/</a>

- Rajakumaran, T., (2014). Impact of information technology on employee' performance in education department, jaffna zone. *Indian Journal of Research in Management, Business and Social Sciences*. 2(1). 17 19.
- Sadiq, T. M. (2007). Computer literacy: an inevitable factor in language teaching and learning in Nigeria in the 21st century. *Journal of Research Development*. 8(5). 74.
- Samsudeen. S. N.. Thelijjagoda. S. and Pulasinghe. K. K.. (2015). Mobile Office and **its** implications for ERP Systems: A Review of Literature. *International Journal of Advanced Research in Computer Science and Software Engineering*. 2(1). 12-16.
- Schermerhorn. J.. Hunt. J.. and Osborn. R. (2005). *Organizational behaviour*. York: John Wiley & Sons.
- Scott Morton. M.S. (2001). The corporation of the 1990s: information technology and organizational transformation. New York: Oxford University Press.
- Stanford. N. (2005). *Organization* design: *The collaborative approach*. oxford: Elsevier Butterworth Heinemann.
- Turban. E., McLean, 13.. and Wetherbe. 3. (2003). Information technologjia menadtment transformisanje poslovanja u digitalnu ekonomiju Beognd: Zavod a ud±benike i nastavna sredstva.
- Tusubira. F.. & Mulira. N. (2004). *Integration qIICT in organizations challenges and best practice recommendations based on the experience of Malcerere University and other organizations*. Paper presented at Universities. Kampala: 'taking a leading role in ICT enabled human development.
- Uzoka, F.M. (2002). Effects of information technology on customers' satisfaction in Nigerian financial institutions. *The Nigerian Accountant*. 3 5(4), 5-8.
- Wailer. A.D. and Ragsdell. G.. (2012). The impact of e-mail on workelife balance. *Aslib Proceedings*. 64(2). 154 177.
- Wangwe. F. N. (2010). Enhancing professionalization of human resource management in the public service in Ajflca: in capacity building workshop for public sector human resource managers in Africa, Benin: Yomleks publishers.
- Werthner. H. and Klein. S. (2005). ICT-enabled Innovation in Travel and Tourism. innovation and Product Development in Tourism.
- Yamane, Y. (1967). Statistics, an introductory analysis, 2nd Ed.. New York: Harper and Row. B.