

Influence of Information and Communication (ICT) Maturity on Nigerian Correctional Education Services

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Abstract. With the global acceptance of ICT in correctional education, there is the need to investigate how its adoption and maturity influenced rehabilitation, reformation and increasing recidivism common in Nigerian correctional services. Therefore, this study is on the influence of information and communication (ICT) maturity on Nigerian correctional education services. Descriptive survey of ex post facto type was adopted with four objectives, four research questions and a null hypothesis. A Modified Questionnaire ‘Information and Communication Technology Maturity Scale’ with 0.73 reliability was administered to 120 participants selected using multi-stage sampling techniques. Frequency distribution, percentage and multiple correlation matrix was used to test for null hypothesis at 0.05 alpha level. Results of the relationship between independent and dependent variables show that skill dependence ($r= 0.28$), task performance ($r= -0.29$), restricted ability ($r= -0.37$), high ability ($r= -0.26$) and organizational competence ($r=0.19$). This indicates that the independent variable has positive influence on skill dependence and organisational competence whereas it negatively influenced task performance, restricted ability and high ability. It is concluded that ICT maturity is poor and cannot drive correctional education service delivery efficiently in Nigerian correctional facilities; therefore most inmates do not have access to it. It is recommended that ICT infrastructure should be provided to reposition education service delivery in Nigerian correctional system by the Federal government of Nigeria.

Keyword: ICT maturity; education; service delivery.

1. Introduction

Emergence and sophistication of modern societies have brought socio-economic challenges and struggle for survival. The struggle for survival at all costs has been the cause of different dimensions of crime which are associated with the dynamics of our societies. These have compelled societies and nations to identify the need for the administration of criminal justice and correctional system. The innovation of correctional system has been defined by several authors. Otodo and Ugwuoke (2015) states that it can be sociologically defined as “a confinement where socially and legally interned people who have wronged the society are kept for reformation, rehabilitation and possible reintegration into the society where they would contribute meaningfully to its development”. They note that the correctional system is to provide for the transfiguration of those who the society considers their cohabitation inimical to the continued co-existence of the members of the society, whereas they are rehabilitated, reformed and educated to become better citizens.

The correctional system has a long history and its importance cannot be over emphasized in the areas of crime prevention, reduction, reformation, rehabilitation and reintegration of inmates to the society. The history of correctional system started as imprisonment systems in Africa around 1440 during the Atlantic slave trade, and lasted for over four centuries. According to Asante (2016) “the treatment of millions of Africans during this period involved the construction of forts and slave castles where captives were detained under harsh conditions awaiting transport”. The colonial era marked the beginning of the development of modern sense of imprisonment in Africa (Pete, 2008). Bernault (2003) in Pete (2008) asserts that the massive and systematic spread of prisons in British territories was

characterized by the passage of galore of prison ordinances and the erection of many jails in virtually all administrative posts.

In Nigeria, the modern correctional system was established as a prison system in 1861 to satisfy the society's need by the declaration of Lagos as a colony and the beginning of the institution of formal machinery of governance. This was followed in 1863 by the establishment of a police court in Lagos to resolve party disputes among merchants and traders. The functioning of the courts and the police in the colonial settings necessarily means that prisons were needed to complete the system. In 1872, the Broad street prison was established with an initial capacity of 300 inmates. Another prison was also established in Bonny at the time.

In line with the historical trend, the prison or correctional system in Nigeria has been functioning as a place delineated and declared by law of the state to restraint the accused or convicted of violating the criminal laws of the state (Opara, 1998). According to Nigerian Correctional Service Act (2019), some of the statutory responsibilities of the Nigerian Correctional Service include:

Conducting work and needs assessment aimed at developing appropriate correctional treatment methods for reformation, rehabilitation and integration; implementing reformation and rehabilitation programmes to enhance the reintegration of inmates back to the society; initiating behaviour modification in inmates through the provision of medical, psychological, spiritual and counseling services for all offenders including violent extremists; empowering inmates through the deployment of educational and vocational skills training programmes, and facilitating incentives and income generation through custodial centres, farms and industries.....(pg 8-9)

Based on this, the Nigerian correctional service is to establish a credible service which through excellent penal practice seeks lasting change in offender's attitudes, values and behaviour to ensure successful reintegration into the society. The major objective of Nigerian correctional service is to reform and rehabilitate convicts through conscientisation and several other programmes that at departure such persons would become better citizens.

To achieve this major objective, correctional education services must be available. Ewulum, Omeriyang and Mbara (2015) identify that reformation and rehabilitation of inmates can only be

achieved through education and skill acquisition training. Formal education becomes a panacea for effecting positive changes in inmates before they are released. Formal education in correctional facilities aims at providing the awareness that will enable young as well as mature adults to improve or supplement their knowledge and skills in general subjects. The education of inmates enhances their abilities to improve their future job and educational possibilities and potentials.

Thus, correctional education is one key aspect of the rehabilitative and reformatory roles in which inmates can engage while in custody. It is not just a means of keeping the inmates occupied, but has the capacity to form a stepping stone towards inmate's inclusion and reintegration into society (Hawley, 2013). By providing positive learning environments, correction can support the inmates to make good use of their sentence and address gaps in their learning skills. It can also improve their employ-ability and change their personal attitudes and perceptions. This in a long run helps them to understand the reasons for and consequences of their actions. All of these factors can reduce their chances of re-offending. Moreover, United Nations and United Nations Education Social and Cultural Organization (1995) declare that "access to education is a fundamental human right and inmates should not be denied the chance to exercise this right. It can therefore be argued that imprisonment, even if it is viewed as justified punishment, should not bring with it the additional deprivation of civil rights, which include education".

Globally, inmates access to correctional education has been generating serious interest because they are usually less educated than the general population. Surveys have shown different levels of education and literacy levels across correction homes. For instance, in 2003, 53% of inmates in Ireland were found to be ranked in the lowest category for literacy on the National Framework of Qualifications, compared to 23% of the general population (Hawley, Murphy and Manuel, 2013). In Germany in 2003-2004, 85.8% of inmates had completed middle-school, compared with 97% of the general population. 51.7% had completed secondary school, compared to 55.4% of the general population (Czerwinski, König and Zaichenko, 2014). Brazzell, Crayton, Mukamal, Solomon and Lindahl (2009) report that "in the US, as of 2004, 65% of inmates had either a General Educational Development or high school diploma, compared to 82% of the general population". Only 17% had tertiary education, compared to 51% of the general population." According to Australian Institute of Health and Welfare (2009) only 14% of prisoners

had completed year twelve, compared to 63% of the general population. Ministry of Justice, United Kingdom (2010, 2011) reported that in the UK, as of 2010, “47% of inmates reported having no formal qualification compared to only 15% of the general population.” The experience is not too different in New Zealand where 66% of inmates reported having no secondary or tertiary qualifications, compared to 23% of the general population in 2016 (Banks, 2017).

Arising from the low educational attainment of inmates, correctional education became a global panacea to provide learning skills that enhance reformation, rehabilitation and better life for inmates (UN and UNESCO, 1995). Although there are differences in the concept, curricula and instructional materials used, it is practiced to guarantee the right to education of inmates. According to Nordic Council of Ministers (2005) the concept of correctional education varies from one country to other. However, it is generally accepted that correctional education system is important in correctional service and its implementation should emphasize life-long learning for the general population.

To achieve this, education in the correctional facilities is broadly defined as any education the content of which is in accordance with various laws issued under the Ministry of Education (Nordic Council of Ministers, 2005). These include special education, preparatory adult education, general adult education, upper secondary adult education, internet-based courses, university studies, workshop training, vocational education and education for inmates of foreign origin. In Finland correctional education is also called prison education which is described as comprising basic education, upper secondary education and vocational training and education in the national languages for immigrants, university level education, courses offered at folk high schools and adult education institutions.

According to Otodo and Ugwuoke (2015) “globally, education has been consistent in correctional systems over the past 200 years, though the form it has taken and the rationale behind its provision have changed over time”. They noted that “in 1798, education was introduced in the Americas’ first correctional facility, the Walnut Street Jail in the context of religious instruction intended to help individuals repent for their crimes and develop spiritually and morally. The late 1800s marked the rise of the reformatory era, and educational offerings expanded beyond religious instruction to emphasize literacy and communication skills, as well as the inclusion of secular courses such as astronomy, geography, and history”. Gumi (2014)

states that “through the 1970s, often considered the golden age for rehabilitative programs, educational instruction proliferated, eventually including high school courses and general equivalency diploma (GED) preparation, vocational training in specific trades, life skills programs, academic higher education program, and study release”.

Indabawa (2000) states that “in Africa, correctional education is generally less well-established throughout Africa in comparison to the western world”. Since the establishment of the first correctional system as prison in Nigeria in 1861, however, as of 2010, few formal education programmes had been implemented by the Nigerian government (Enuku, 2001, Chukwuemeka, 2010). Chukwuemeka (2010) notes that “the provision of education was, though apprenticeships in trades are offered to keep prisons operational”. According to Sawahel (2017) the National Open University brought about an improvement in 2016 by establishing training centres at six Nigerian correction facilities, and offers inmates a 50% discount on all tuition fees.

Evidences of correctional education in Nigeria have been reported by Ogundipe (2008) in Otodo and Ugwuoke (2015). They stated that the Nigerian correctional service established correctional education, practical programmes for vocational skills development, reformation and rehabilitation of inmates. They reported that there is the adult remedial education programme (AREP) which is designed to help inmates who were pursuing one academic programme or the other before imprisonment. These programmes were to enable inmates to learn skills in different vocations and also to be grounded academically to become professionals like Doctors, Lawyers and graduates after discharge.

Coyle (2002) states that “since the modern trend in correctional system are technological driven, it is important that the various systems within the national scope should adopt such changes and improvement in modern infrastructure and personnel in order to make correctional service perform statutory functions following world best practices”. According to Helsper (2008), the importance of ICT as an important tool in every society, including the correctional society cannot be overemphasized. He states further that the ability to use ICT and the internet is a functional skill of increasing significance for communication, skill acquisition, reformation, rehabilitation, information research, post-conviction employment and self employment. Clarke (2016) emphasising the importance of ICT in correctional

services remarks that e-learning gives inmates the chance not only to learn subjects for their general or vocational education but also provides them with the opportunity to acquire digital literacy.

UN and UNESCO (1995) state that “in the current world, digital competence has become necessary for the workplace and also in the daily life, hence the chance for ex-offenders to be re-integrated can be greatly enhanced by offering new skills in the field of new media and computer use”. Furthermore, the two world bodies note that the access to education and knowledge gaps between people in correctional facilities and in the larger societies are widening and are making post-custody resettlement difficult if skills taught through correctional education have not been acquired while in custody. These global agencies state that “education is paramount in the effort to rehabilitate or create resettlement. Access to education (to books, information and literacy support) is a right and not a privilege. Education should be seen in the broadest sense as encompassing a huge range of different types of personalised activities in order to meet the diverse needs of correctional education services. The purpose of custodial prison or correctional services is to assist inmates towards rehabilitation, therefore education has to be absolutely core to life in and out of correctional facilities”. The Irish Prison Service (2018) reports that educational services are available in all correctional facilities and are provided in partnership with a range of educational agencies including the Educational Training Boards (ETBs), Public Library Services, the Open University and the Arts Council.

The need to improve access to correctional education services and the extent to which the use of ICT has developed in correctional systems are linked to the overall national policy environment of countries based on the global convention on prison or correctional education. However, the philosophical attitude of desiring to give ICT access and or education to inmates is a function of the national education process such as the resource that the government gives to funding teaching staff, hardware and software. According to Hammerschick (2010), ICT competencies have been identified as central goals of education in correctional systems in Norway. It has also been in practice that education and training are driven with ICT where inmates, staff in charge of education and lecturers use computers and software for e-learning. According to literature, correctional education in England is organised on classroom basis and addresses basic literacy and numeracy needs as provided by private employed correctional education staff. Although this has improved since 2008 where

all UK correctional facilities are connected to the virtual campus project which is a nationally defined strategy for the country. Similar policy was adopted in Catalonia between 2007-2010 with the strategic objectives of Penitentiary services stating the necessity of the use of ICT as a tool for socio-educational intervention providing inmates ICT access as a tool against digital illiteracy and social exclusion. Greece’s situation is quite impressive with the high level of equipment in all correctional school units. One reason adduced for this is that there are many foreigners in Greek correctional facilities that are attending school and in need of ICT and multimedia support.

Lockitt (2011) identifies that using e-learning systems for their own purposes, correctional systems become aware of the advantages in ICT in education. It provides innovative tools for necessary continuous qualification and also raises the insight in the benefits of e-learning for inmates while it should be used for further qualification by correctional staff. Tsend-Ayush (2017) enumerates several ways the use of ICT could have impact on the correctional system. ICT gives more accurate and quick access to information and internal units of correctional system. In its use, information sharing is enhanced between both head and subordinate in the organization. Furthermore, ICT enhances modern security system and improves protection for staff within the correctional system. The unique nature of correctional system requires that operation pattern is updated with technology such as computer system, x ray machines, wands and portals for determining metals, systems for detecting explosives and biometrics, entry systems for visitors to avoid escape of inmates. Correctional system medical personnel’s use of telemedicine, consultation with medical staff from distance through video conferencing, using medical cameras. ICT infrastructure has also been deployed for the purpose of computer based learning in correctional facilities. In addition, Global Positioning System (GPS) is used to monitor correctional facilities, both internally and externally. Surveillance technology allows staff to view areas of the prison while Speaker ID technology is used to track those who call inmates and monitor criminal activities.

The adoption of ICT in operations of correctional systems is a global phenomenon. This has also generated the need to ensure that its level of development is measured in compliance with global benchmark. In the light of this, Tsend-Ayush (2017) notes that the extent of correctional education and learning service delivery efficiency by the adoption

of ICT is measurable by determining the positive changes reflected in the management of the correctional system. The infrastructure like servers, PC, Laptop, mobile phone, telephone, fax, network, internet, LAN, WAN are basic for the application of ICT for the improvement of education service delivery in the correctional system. Although, Hammerschick (2010) states that correctional system take advantage of ICT infrastructure in providing training and education service delivery through e-learning and other applications for security, intranet and internet for internal and external information.

The development trend of ICT infrastructure in correctional system is shown by the increase in connectivity and mobility day by day. Hammerschick (2010) states that e-learning in fact goes beyond its general acknowledgement but how its advantage is taken in training and education service delivery in correctional system. The understanding of e-learning includes education via the internet, via networks or stand alone computer, web-based applications (WBT), computer-based (CBT) applications and virtual classrooms. To this end, it is pertinent to determine how its use has addressed the operational needs of correctional system staff in providing education and learning opportunities for inmates.

In the area of application, the intention of the adoption and application of ICT infrastructure and software is to positively change the processes and ways of managing the correctional system and provide correctional education effectively. Some popular applications are management information system, decision support system, intranet, extranet, e-commerce, knowledge base system, social network services and correctional education and learning service. This ICT application has mutual-relation with both ICT infrastructure and human resource (Quoc, 2010). Tsend-Ayush (2017) notes that apart from these advantages, the impacts of the application of ICT in correctional system should be felt on daily activities of correctional staff such as less movement diminished routine tasks, and versatile communication between correctional staff and inmates.

To Tsend-Ayush (2017), it is important to evaluate how this evolution has led to the increasing improvement of the performance and administration of the correctional system and provision of education and learning services to inmates to ensure they are prepared for self-realization and contribute to the development of society. In this regards, it is to determine how the adoption and application has led to the active participation of correctional system

staff, the level of participation of inmates and the level at which opportunities have been created for inmates to learn and develop themselves for challenges awaiting them after serving sentence.

In order to determine the level of importance of ICT maturity in the development of human resource, references are made to what the level of sophistication of the skills as well as the innovation capability of correctional system. Sanders (2017) states that in the case of correctional system, ICT driven digital literacy is a key functional skill paving the way to further learning, employment and access to services in the modern world. The relevance and quality of ICT training in correction is every bit as important as that provided in Mathematics, English and vocational skills provision. ICT and digital systems in correction must support more flexible access to learning that is tailored to the needs of individual learners and enables participation in distance and other learning. Sanders (2017) identifies digital learning in correction as contributing to human resource development through programmes like basic digital skills training provided by the virtual campus (VC) and correction ICT academies (PICTAs) and the offender learning and skills service (OLASS) etc.

ICT in concert with hardware and software tools as computers, programs form network that is complex and making possible the processes associated with information such as storage, manipulation, managements, display, interchange, and transmission of data. Arising from these, it is crucial to consider and measure its adoption in line with how it has improved further qualification of prison staff by using ICT driven education and learning service delivery for the enhancement of further qualification and skills improvement of inmates. Although, ICT use in the correctional system made a slow start in the beginning, its adoption and application are subjected to measurement process in order to determine whether this innovation and technologies actually serve the expected purposes of enhancing the effectiveness of correctional institutions in areas of making corrections safer for both staff and inmates as well as provision of education and learning opportunities for inmates. Quoc (2010) and Tsend-Ayush (2017) notes that ICT development in the correctional system is a dynamic process and the infrastructure are constantly subjected to measurement to establish that their development trend promote increase in connectivity and efficient correctional education and learning service delivery.

This buttresses the point that correctional education unit officers who would be providing ICT services and knowledge to such inmates are to be well versed or grounded in it. This requires that they display maturity in ICT. The usage of ICT ranges from simple calls and text messages to complex usage such as e-mails, information processing systems (Irefin, Abdul-Azeez and Tijani, 2012). Obioha (2011) identifies the new conceptualization for Nigerian correctional staff training academy, Kaduna to include human resource development, library, ICT, logistics, conference facilities, curriculum development and CBT. He submitted that the correctional system in Nigeria is still developing, particularly in computerization to meet the world standard.

Following the global trend, Obioha (2011) states that the Nigerian correctional service commenced the adoption of ICT for all its operations including correctional education and improving inmates access to education. This can only be well achieved through the use of ICT. According to FGN (1989), some of the objectives of rehabilitation services in Nigerian correctional system are to ensure effective management of crisis among inmates. According to Ogidan (2012) use of ICT inmates in correctional facilities are being provided with educational services despite their incarceration. This is to provide appropriate training for the inmates to reduce dependency as well as adequate and accessible recreational and sporting facilities for the inmates. Zhakom (2018) also identifies that ICT use in Nigerian correctional facilities include computer system, closed-circuit television (CCTV), internet/electronic mail, photocopier, use of video conferencing etc.

In the words of Quoc (2010) ‘‘maturity level in ICT connotes the state when it reaches full development in applying ICT.’’ Therefore, ICT maturity of Nigerian correctional education services is the state in which the service attains full development in applying information and communication technology in its activities and service delivery. The author further states that measurement of maturity level of ICT involves four levels. These are the ICT policy of the organization, ICT infrastructure, ICT application and ICT human resource. However, with the lots of possibilities ICT can achieve in the attainment of correctional education, it still remains a function of full development of its application. Experts have identified different models of ICT maturity like Kochikar (2004) who propounded the knowledge management model with five levels of maturity in an organisation adopting ICT for service delivery. He

identified default, reactive, aware, convinced and sharing levels of ICT maturity. As the first level, default refers to complete dependence on individual skills and ability. Reactive level has to do with being able to perform tasks that constitute basic business repeatedly. The aware level refers to manifest restricted ability for data driven decision making, restricted ability to leverage internal expertise, ability to manage virtual teams well. The next level is convinced which refers to display high ability to leverage internal/external sources of expertise, ability to sense and respond to change. The sharing level is the ability to manage organizational competence quantitatively flexible for change in technology and environment.

The process of reformation and rehabilitation of inmates in the correctional system using correctional education have not achieved the expected objectives. Obviously, the key elements in ensuring that inmates are reformed and recovered from a life of crime by exploiting programs such as adult and remedial education for inmates, skills and vocational training, religious instructions, recreational and attitude change to facilitate their social integration into the society after jail have not yielded positive outcomes (Daramola, 2004, Akpe, 2004, Ibikunle, 2015). This gap exist in Nigerian correctional system because it is perceived to be offering more of custodial than rehabilitation and reformation due to little attention it gives to improving ICT infrastructure that can improve inmates access to correctional education resources (Enuku, 2000).

Based on this, inmates in Nigerian correctional system are still cut-off from access to education, recreational and social facilities available in their local communities. Thus, they are not really exposed to proper process of reformation and rehabilitation and lack the required skills to live productive life. To address this peculiar problem in Nigerian correctional facilities several researches have been conducted like Obioha (2011) who investigated the challenges and reforms in the Nigerian prisons system and Tsend-Ayush Ganbadrakh (2017) that focused on the impact of information and communication technologies on prison institutions. However, not much has been done on how development of ICT maturity in correctional education contributes to poor attainment of correctional education objectives. Therefore, this study is on influence of information and communication (ICT) maturity on Nigerian correctional education service.

It is important to investigate the current use of ICT in correctional education service delivery in Nigerian

correctional services. To simplify data collection, this study adopted the Kochikar (2004) maturity model with five levels of measuring ICT maturity which are default, reactive, aware, convinced and sharing. These five levels of measuring ICT maturity were decomposed to their five indicators which constitute the independent variables and are measured as skill dependence, task performance, restricted ability, high ability and organizational competence to determine their relationship with the dependent variable.

This study sets out to achieve four objectives. First, to determine the existence of ICT infrastructure in the correctional facilities under study. Second, to determine the ICT infrastructure penetration level in correctional education service delivery in the correctional facilities. Third, to determine the level of maturity of the ICT infrastructure in the correctional facilities. Finally, to determine the influence of ICT maturity (i.e skill dependence, task performance, restricted ability, high ability and organizational competence) on correctional education in the correction facilities. The study has four research questions They are: (i) is ICT infrastructure available in the correctional facilities under study? (ii) what is the ICT infrastructure presence level in correctional education service delivery in the correctional facilities? (iii) what is the level of maturity of the ICT infrastructure in the correctional facilities? iv) is there any relationship between ICT maturity (i.e skill dependence, task performance, restricted ability, high ability and organizational competence) and correctional education in the correction facilities? The null hypothesis is stated thus: there is no significant relationship between ICT maturity and correctional education in the correctional facilities.

2. Methods and Data Analysis

The study is a descriptive survey of ex post facto type because the researchers did not manipulate any of the variables. The population of the study was 3360. Multi stage sampling technique was used to select sample for the study from Ijebu Ode, Old Abeokuta, New Abeokuta, Ilaro and Sagamu correctional facilities. First 200 correctional education officers were selected using stratified sampling technique after which 20 were randomly selected. Second, stratified sampling technique was used to select 100 inmates from each of the five correctional facilities after which 100 inmates were randomly selected. Therefore, a total of 120 respondents from five correctional facilities in Ogun state that participated

in the study. A Modified Questionnaire ‘Information and Communication Technology Maturity Scale’ with 0.73 reliability using pre-field post-field Cronbach alpha method, was administered by the researchers and two other research assistants to generate data. Data gathered were analysed using descriptive statistics like frequency distribution and percentage while inferential statistics i.e multiple correlation matrix was used to test hypothesis at 0.05 alpha level.

3. Results

3.1 Descriptive Statistics

Data analysed shows that 120 participants took part in the study out of which 79(65.8%) were male and 41(34.2%) were female. This shows that the study cuts across both gender. Further, data on the respondents’ ages show that those between 20-30 years old were 11(9.16%), between 31-40 years old were 17(14.16%), 41-50 years old were 49(40.8%) while 51 years old and above were 43(35.8%). It also show that respondents with working experience below 10 years were 13(10.8%), working experience between 11-20 years were 19(15.8%), working experience between 21-30 years were 45(37.5%) and those with 31 years work experience and above were 43(35.8%). This shows that the bulk of the respondents were highly experienced on the job and competent to address the items of the instrument.

On the extent of presence of ICT infrastructure in correctional education service delivery, data shows that among the participants 9 (7.5%) rated it satisfactory, 30 (25%) rated it fair, 20 (16.7%) rated it poor and 61(50.8%) rated it very poor. Data analysis of use of stand-alone computers and internet facilities for correctional education service delivery reveals that 6 (5%) rated it satisfactory, 21(17.5%), rated it fair, 27(22.5%) rated it poor and 66 (55%) rated it very poor. Furthermore, data shows that on the effectiveness of ICT application to correctional education service delivery, 7(5.8%) rated it effective, 19 (15.8%), 29 (24.2%) fair, 35 (29.2%) rated it poor and 30 (25%) rated it very poor. It can be deduced that ICT infrastructure presence is still very poor in Nigerian correctional system and its application to correctional education service delivery has been rated to be poor and ineffective.

Correlation analyses

Table 1: Correlation Matrix of Relationship between Independent and Dependent Variables

Correctional service delivery	Skill competence	Task performance	Restricted ability	High ability	Organisation competence	education/ dependence	performance ability	ability
Correction education/ service delivery	1							
Skill Dependence	0.28	1						
Task Performance	-0.29	-0.275	1					
Restricted ability		-0.37	-0.47	1				
High ability	-0.26	0.54		0.80	0.64	1		
Organizational Competence	0.19	0.75	0.69	-0.24	0.87	1		

0.05 Significant Level

Source: Data from Field Survey (2020)

Table 1 above shows the correlation analysis and the relationship between the independent and dependent variables skill dependence ($r= 0.28$), task performance ($r= -0.29$), restricted ability($r= -0.37$), high ability ($r= -0.26$) and oorganizational competence ($r=0.19$). This shows that the independent variable has positive influence on skill dependence and organisational competence whereas it negatively influenced task performance, restricted ability and high ability. This shows that ICT maturity in skill dependence and organisational competence contributed positively while task performance, restricted ability and high ability contributed negatively to correctional education service delivery. This result corroborates the earlier findings of Ogidan (2012) ICT provides the required support for correctional educational services. It is also in line with the report of Solar, Sabattin and Parada (2013) that the independent variable have influence on the dependent variable and improves the attainment of education service delivery. It is also similar to the findings of Ekuobase and Olutayo (2016) that there is a positive or negative correlation between ICT maturity and ICT value of education service delivery. It also confirms the findings of Leónab, Igartuaa and Ganzarain (2018) that adoption and effective use of ICT is correlated to greater functionality and diversification of education service delivery. However, the implication of this finding is that the negative correlations indicate the areas of low ICT maturity in the prison education service delivery of Nigeria prison system.

4. Conclusion and Recommendations

This study explored the ICT maturity level and its relationship with the correction education services of selected correction facilities in Ogun state, Nigeria, with the intention of contributing to the current existing body of literature on the use of ICT and correctional education services outcomes. The study revealed that before 1994 the correctional system in Nigeria was poorly equipped with ICT infrastructure. However, post 1994 showed that its deployment was across facilities and utilization were limited to some activities thereby indicating its low maturity. This is associated with poor correctional education service delivery, poor rehabilitation and reformation of inmates. Although, it has also contributed in some areas listed in the results above, however, its low level of maturity has been responsible for the level of success of tasks related to effectiveness of ICT in correction education in the facilities. It also showed that the ability of the correctional officers are restricted irrespective of the potentials they possess in attaining the main objective of ICT driven correctional education for rehabilitation and reformation of inmates. This was linked to poorly equipped ex-convicts that lack coping skills for life after jail sentence and may have increased the rate of recidivism. This corroborates concerns by scholars that lack of ICT infrastructure lead to poor correctional education, poor rehabilitation, reformation and increasing crime and congestion of correctional facilities.

It is important to state that the study location for this research is appropriate because of the population of the inmates, size and age of the correctional facilities in Ijebu Ode, Old Abeokuta, New Abeokuta, Ilaro and Sagamu. Furthermore, the facilities chosen are true representation of the correctional system in Nigeria and provided accurate data on the subject matter. Thereby, results generated will be consistent with any other similar study carried out in facilities other than these. Again, the relationship between the variables will be consistent that there are relationships between ICT maturity and correction educational service delivery in Nigeria correction facilities. Further findings also show that improved provision and increased utilization of ICT will raise its maturity, improve rehabilitation and reformation of inmates and ultimately reduce recidivism.

From a policy point of view, the results suggest that provision of ICT and its maturity in the provision of correctional education services might be a valid approach to proper rehabilitation and reformation of inmates and reduction in recidivism. Although, its maturity is still low, its influence has also shown that it is a veritable tool for reduction in the rate of recurring offending of ex-inmates. Irrespective of findings of other similar research, it is crucial to state the importance of implementing ICT infrastructure to maturity level for the effectiveness of correctional education services in correction facilities. This is so because it is unlikely the desired results will be effectively achieved if ICT infrastructure policy for correctional education policy only focuses on provision and installation without considering its maturity level. ICT infrastructure policy implementation requires high maturity level before it can be effective. The policy makers should note that attainment of this ICT high maturity level functions as the driver that achieves the objectives of correctional education in the forms of reformation, rehabilitation and reduction in recurring offending.

The limitations of the current study included initial inability to have access to the inmates of the correctional facilities that constituted the study area. It is important for researchers to continue to study the effects of ICT facilities provision in correctional centres and on reformation, rehabilitation, correctional education, recidivism and social impacts. Furthermore, scholars can also focus on studying the use of ICT infrastructure in building data on tracing and locating ex-inmates of correctional facilities for post conviction follow up and research.

References

- Asante, G. (2016). The Effects of Human Rights' Management Practices in Correctional Facilities on Inmates and Ex-Inmates in Ghana: The Case of Kumasi Central and Female Prisons. A Thesis Submitted to the Institute of Distance Learning, Kwame Nkrumah University of Science and Technology, in Partial Fulfillment of the Requirement for an Award of Master of Philosophy Degree in Political Science. 31-38.
- Clarke, R. (2016). How Education Transforms: Evidence from the Experience of Prisoners Education. Trust on how education supports prisoners' journey.
- Coyle, A. (2002). A Human Rights Approach to Prison Management. A Handbook for Prison Staff. ICPS. London
- Ekuobase, G. O. and Olutayo, V.A. (2016). Study of Information and Communication Technology (ICT) maturity and value: The Relationship. *Egyptian Informatics Journal* (2016) 17, 239–249. www.elsevier.com/locate/eijwww.sciencedirect.com
- Federal Government Nigeria (1989). Social Development Policy of Nigeria. Lagos. Federal D. S. C. Unit
- Hammerschick, W. (2010). Report on e-learning in European Prisons - Concepts, organisation, pedagogical approaches in prison education. Learning Infrastructure for Correctional Services, pp:1-22 [accessed March 3, 2019 from https://www.exocop.eu/](https://www.exocop.eu/)
- Hassan., M. A and Oloyede, T. O. (2011). Evaluation of Components of Adult Education on the Inmates' Welfare in Agodi Prison Yard, Ibadan, Oyo State, Nigeria. *Developing Country Studies* 1(1) retrieved from www.iiste.org
- Helsper, E. J. (2008). Digital Inclusion: An Analysis of Social Disadvantage and the Information Society. <http://eprints.lse.ac.uk/26938>
- Irefin, I. A.; Abdul-Azeez, I. A. and Tijani, A. A. (2012). An Investigative Study of the Factors affecting the Adoption of Information and Communication Technology in Small and Medium Scale Enterprises in Nigeria. *Australian Journal of Business and Management Research* 2 (2) 1-9
- Irish Prison Service. (2008). IDA Business Park, Ballinalee Road, Longford, Co. Longford

- Kochikar, V. P. (2004). The knowledge management model. A staggered framework for leveraging knowledge. http://www.infy.com/knowledge_capital/know/KM.
- Lockitt, G. W. (2011). Technology in prisons. Report by Winston Churchill Travelling Fellowship. <https://www.wcmt.org.uk/sites/default/files/migratedreports/7971.pdf> (Viewed 4 Dec 2018)
- Nigerian Prison Service (2011). Nigerian Prisons Service Standing Orders Manual. Printed and Published by The Federal Government Printer, Lagos, Nigeria.
- Obioha, E. E. (2011). Challenges and Reforms in the Nigerian Prisons System. *Journal of Social Sciences* 27(2) 95-109
- Ogidan, R. (2012). Use of Technology as Support System for Prison Inmates in the National Open University of Nigeria Study Center, Kirikiri-Lagos. *Journal of the Open University of Tanzania*. 13(2).
- Omar A. Leónab, Juan I. Igartuaa, Jaione Ganzarain (2018). Relationship between the use of ICT and the degree and type of diversification. *Procedia Computer Science* 100, 1191 – 1199
- Opara, A. I. (1998). Criminology and Penology. Owerri: Cel-Bez & Co. Publisher. www.defindia.net.
- Otodo, I. and Ugwuoke, K. A. (2015). The Role of Formal Education in the Rehabilitation and Reintegration of Prisoners in Nigeria: A Case Study of Jos Prison, Nigeria. *Journal for Studies in Management and Planning*, 1(11): pp:43-54 <http://internationaljournalofresearch.org/Index.php/JSMaP>.
- Quoc, Trung Pham. (2010). Measuring The ICT Maturity Of SMEs. *Journal of Knowledge Management Practice* 11(1).
- Sanders, A (2017). Successfully using ICT to support learning in the secure estate: Identifying and Documenting Current Examples. Education and Training Foundation. Angela Sanders Consulting.
- Solar, M., Sabattin, J., & Parada, V. (2013). A Maturity Model for Assessing the Use of ICT in School Education. *Educational Technology & Society*, 16 (1) 206–218.
- Tsend-Ayush Ganbadrakh. (2017). The Impact of Information and Communication Technologies on Prison Institutions. *Hadmérnök (XI)* 1.
- United Nations Organisation. (1990). Basic Treatment of Prisoners. UNO General Assembly Resolution A/RES/45/111. Accessed on February 4 from www.un.org/documents/ga/res/45/a45r111.htm
- United Nations and UNESCO. (1995). Basic Education in Prisons. United Nations Office at Vienna. Crime Prevention and Justice Branch. United Nations, Vienna. Baltimore, USA
- Zhakom. (2018). Effective use of ICT in Prisons Administration. Being a Paper Presented to officers and men of Prison state Headquarters, Jos: Dated 26th July, 2018