

**THE CONTRIBUTION OF EFFECTIVE ELECTRONIC RECORD
MANAGEMENT TO FIGHT CORRUPTION: THE EVIDENCE FROM
SELECTED PUBLIC SERVICE OFFICES IN TANZANIA**

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Abstract

It is undeniable fact that corruption practices in both public and private domains hinder the full realization of development of people in various aspects, in social, economic and political fronts. This paper attempts to show the contribution of effective electronic-record management systems to fight corruption in Tanzania particularly in hospitals, the judiciary and police force in order to ensure effective and efficient delivery of services. The paper is based on an extensive desk review of secondary data from relevant sources. The results show that there is a significant difference between the use of e-record management and its non-use in terms of addressing corruption practices done by public officials in the studied sectors. Special attribution is derived from the use of Information and Communication Technology (ICT) devices like Electronic Fiscal Devices (EFDs) machine, mobile telephones, Electronic Health Records (EHRs) systems and the like. This paper concludes that, in order to fight corruption, there is a need to establish and promote the use of electronic record management systems not only in hospitals, judiciary, police force, but also in all sectors of the economy within both public and private domains. This is essential to facilitate effective delivery of services to the citizens hence, address corruption practices. The study recommends further, that the government should take a leading role in terms of putting initiatives to ensure e-payment record management systems is adopted and used by all individuals as well as both public and private institutions throughout the country to promote sustainable socio-economic development.

Keywords: *Record keeping; E-record Management; Corruption; Public service social services; Tanzania*

Introduction

Development of science and technology in this era of globalization unfolds several new opportunities that provide significant benefits to the lives of the majority of people in both developing and developed countries (Crow, et al., 2017; World Bank, 2012; Yusuf & Afolabi, 2010; Velicogna, 2007). The effective and timely access to social services on the part of citizens from their respective governments is one of the benefits brought by Information and Communication Technology (ICT) facilities such as mobile phones and electronic fiscal devices. Likewise, the use of such electronic gadgets is crucial to improve effective record management as opposed to manual systems that can be easily tampered by an individual for his/her own benefit. As such, through the use of ICT facilities, it becomes easy to follow up how public officials render services to the citizens and record all the transactions done. Hence, it is expected that such development in improved record management is relevant to ensure transparency in the way the government conducts its business and hence, help to deal with corruption practices among its employees. However, while most of the developed countries were able to fully take the advantage of these new opportunities manifested in effective use of ICT, the majority have been left behind in making significant achievement on effective adoption and use of ICT facilities (Mlima, 2013). For instance, among the major challenges facing many government institutions in Tanzania such as Tanzania Revenue Authority (TRA)¹, is poor record management. It is stated that unqualified records officers, poor use of ICT facilities as well as poor organizational management records is one of the reasons (Ndemanishi, 2014).

Broadly, corruption refers to an abuse of public office for private gain. Corruption encompasses abuses of position of government officials such as embezzlement and nepotism, as well as abuses that link both the public and private actors such as bribery, extortion, influence peddling, and fraud. In the context of this study we adopt the most perennial definition of corruption which is neat and simple i.e. *the abuse of public office for 'private economic gain'* (Rose-Ackerman & Palifka, 2016; World Bank (1997). While there are not enough evidences of existing petty corruption among rich nations, most of the developing countries are subject to the effects of both grand and petty corruption from within their countries as well as from outside (Mashali, 2012). While Tanzania has been undertaking several steps on the use of ICT facilities which led to a number of positive outcomes on social, economic and political aspects, more is needed to be done in terms of addressing

¹ Tanzania such as Tanzania Revenue Authority (TRA)¹, is one of the key institutions that collect revenues to facilitate socio-economic development of the country

corruption among officials working in various public institutions (Transparency International, 2015; Trade Economics, 2017). In this context, the paper focuses on examining the contribution of electronic record management to fight corruption problems in the police force, judiciary and hospital services. The idea of this topic arise from the influence of earlier findings demonstrating a close link between ICT use and improved government undertakings (Asonibare & Akaje, 2015; Hope, 2016, 2017; Samanta & Sanyal, 2016; Oyegoke, 2013; Ruxwana et al., 2010; Nyasha, et al., 2012). These include but not limited to reduction of corruption, effective health management systems in health sector, effective and efficient delivery of justice in the courts of law, as well as the increase of revenue collection timely provision of services which has a positive impact on addressing corruption. According to Klitgaard (1988:75), the basic ingredients of corruption include government monopoly, discretion in interpreting 'laws', in deciding who is eligible for benefits, and what constitutes proper documentation and procedure and last but not least is the lack of direct accountability. In the context of this research work the focus is on examining the extent to which proper documentation and procedures (through electronic record management systems) on the part of selected government institutions in the course of providing services to her citizen's help to fight corruption. The selections of these were based on their importance in public services delivery. According to services delivery survey data by Shar and Schacter (2004), in Tanzania 62 per cent of bribe paid were in the police, courts, tax services and land offices.

Literature Review

A Survey of Literature on Corruption and Its Impact

Gordon and Miyake (2001) are of the view that there is no single definition of corruption. In this regard, the concept corruption lends to multiple definitions and interpretations. According to the Samanta & Sanyal (2016), corruption refers to the offering, promising, or giving something in order to influence a public official in the execution of his/her official duties. On the other hand, Carmichael (1995) notes that apart from money, bribes may include other socio-economic advantages like access to scholarship for one's child to any education institution or favorable publicity. Corruption is defined by the World Bank and Transparency International (TI) as "the misuse of public office for private gain."² As such, it involves the improper and unlawful behaviour of public-service officials, both politicians and civil servants, whose positions create the opportunities for the diversion of money and assets from the government to them and their accomplices. Offering and accepting or promising any monetary or

² The World Bank, Helping Countries Combat Corruption: The Role of the World Bank, Poverty Reduction and Economic Management Network, September 1997. See pages 19-20 on definitions of corruption.

nonmonetary advantage with the intent to influence decisions (Pacini, et al., 2002; Becker et al., 2013).

Corruption has a number of negative impacts to the community and it distorts resource allocation and government performance. Indeed, the causes of its development are many and vary across countries. Among the contributing factors are policies, programs and activities that are poorly conceived and managed, failing institutions, poverty, income disparities, inadequate civil servants' remuneration, and a lack of accountability and transparency. As highlighted from the outset, this paper focuses on examining the contribution of electronic record management to fight corruption in some selected public service offices in Tanzania. Given its focus, it is imperative to understand the concept of electronic record management to shape the work into a relatively better context. Shepherd and Yeo (2003:2) define record as any piece of documented information regardless of their physical format or storage medium, created or received and maintained by an organization or individual in the transaction of business and kept aside for preservation as evidence of some specific activity.

According to ISO (2001), records management is a field responsible for the efficient and systematic control of creation, receipt, maintenance, use, and disposition of records including; processes for capturing and maintaining evidence of and information about business activities and transactions. Electronic record management refers to the system in which data files are created and stored in digitized form through the use of computers and applications software (The California Department of General Services (DGS and CalRIM,2002). In this regard, records are stored on various magnetic and optical storage devices which are products of computers and computer software. The electronic devices assumed to support effective services delivery including but not limited to various forms of electronic fiscal devices, mobile phones, and health management systems. In fact electronic payment solutions have been regarded as important tool devices to reduce if not to prevent chances of corruption practices while collecting government revenues or managing various operations undertaken by different government agencies.

Certainly, in several occasion unethical public servants are found to be tempted to engage in corruption practices for their private gains in the cause of delivering of services to the citizens. Similarly, in many countries, developing countries in particular, individuals seeking public services may be tempted to maneuver in order to get access to such services due to many reasons causing them to opt for the use of wrong channels. For instance, applicants of driving licenses, building permits, birth certificates, or even health services such as medical treatment in the hospital or justice seekers in the judicial hearings, may be forced or tempted to offer a surcharge from civil servants in order to compete for limited available services and resources. As a result, this denies other peoples' rights in terms of

equality in accessing to social services and timely provision of services. In addition, when corruption is embedded among high level officials in the government, chances of poor quality or unavailable service is so apparent (Rose-Ackerman et al., 2016). A survey of literature on the role of electronic record management systems in fighting corruption unveils a number of issues regarding effective ways to address such challenges. The use electronic record management such as e-payment systems and Closed-Circuit Television (CCTV) and Body Worn Cameras (BWCs) can help to combat corruption. Through monitoring government officers' practices in order to ensure that they observe ethical codes of conducts while performing their duties. A good example is the embracing extensive use of Body Worn Cameras (BWCs)³ in developed countries such as the U.S.A, to monitor how police undertake their duties effectively (Schneider, 2017; Crow et al., 2017). It unveils that BWCs improved police conduct and increased the trust that people have on the police force due to improved transparency in conducting their day to day duties. Likewise, in some public places such as hospitals and in judicial offices CCTV cameras help to monitor the manner into which government officials undertake their day to day duties.

Although global corruption reports such as Global Corruption Barometer⁴ purport that individuals in both developed and developing countries have been paying attention to corruption, the percentages of most African countries is alarming ranging from the lowest country Rwanda having 13 percent to the extreme 84 percent in Sierra Leone (https://en.wikipedia.org/wiki/Global_Corruption_Barometer, visited on 7/9/2017). Narrating further the extent of corruption and its impacts in the continent the Transparency International Report in Sub-Saharan Country 2015-2017 states: "...nearly 75 million people in Sub-Saharan Africa are estimated to have engaged in corruption practices in the past year – some for the intention of escaping punishment by the police or courts, but many are forced to pay in order to get access to basic services that they desperately need" (Transparency International, 2017) The negative impacts of corruption to the development of the people, especially in Africa, are enormous. Corruption increases inequality between rich and poor people. A good example is on how some politicians in some countries benefit through their positions at the expense of their citizens who they claim to serve. José Ugaz, Chair of Transparency International cements this point by stating that "Corruption creates and increases poverty and exclusion".

³Body Worn Cameras (BWCs) are small devices worn directly on the uniform of front line officers like police officers, usually on the upper chest. These devices record audio and video and can also sometimes be worn on officer glasses or clipped to the brim of a hat.

⁴ The Global Corruption Barometer published by [Transparency International](https://www.transparency.org) is the largest survey in the world tracking public opinion on corruption.^[1] It surveys 114,000 people in 107 countries on their view of corruption.

While corrupt individuals with political power enjoy a lavish life, millions of Africans are deprived of their basic needs like food, health, education, housing, access to clean water and sanitation.” (ibid, 2017). Even among middle and low level government practitioners corruption is the order of the day among many African countries, south of Sahara in particular. Thanks to established Electronic Health Records (EHRs) system⁵ that has largely reduced rampant corruption cases in Nigerian hospitals (Oyegoke, 2013). EHRs system enabled health officers in various departments to manage data entered in one source with regards to patients’ information to be shared by all responsible stakeholders. It helped to avoid patients’ long queues and facilitate doctors’ quickness in attending extra number of patients compared to the conventional method of using papers that attracted corruption practices which were initiated by unethical health officers.

As highlighted from the outset, Tanzania being one of the developing countries in Africa, is not immune to the problem of corruption across private and public sectors. Several local and international studies revealed prevalent cases of corruption in Tanzania across all sectors of the economy (ICS, 2016; LHRC, 2016; World Bank Group, 2015). The country’s position is 116 least corrupt nations out of 175 countries (Trading Economics, 2017). Notwithstanding the presence of several factors which facilitate such occurrence of irregularities and poor provision of social services in Tanzania and other developing countries, lack of and failure to adapt and use electronic facilities that assist e-payment systems was found to be the major causes (Lawrence & Lawrence, 2010). Despite some failures there have been rays of hopes in some areas in Africa. Best practices regarding effective electronic record management use through e-payment system are found in Tanzania and Rwanda in the judiciary sector at higher level courts where investment in the modern ICT infrastructures has improved efficiency in court proceedings (Vilquin & Bosio, 2013). Nevertheless, little has been achieved on the electronic filing in of various forms of cases (like civil, criminal, commercial and family) to improve timely management of important record. The use of electronic forms facilitates effective administrative processes at the lower levels. The best practices remain in the developed countries. In the developed countries access to and use of ICT facilities improved effective social services delivery due to improved record keeping and management of customers’ information and hence, contributing towards reducing corruption cases. So far, little is known about the contribution of electronic record management in fighting corruption in public sectors in the Tanzania economy. Therefore, using the police force, judiciary and hospitals as the selected focus areas, this study sought to examine how the adoption and effective use of various ICT facilities has contributed to fighting corruption and facilitate effective social services delivery

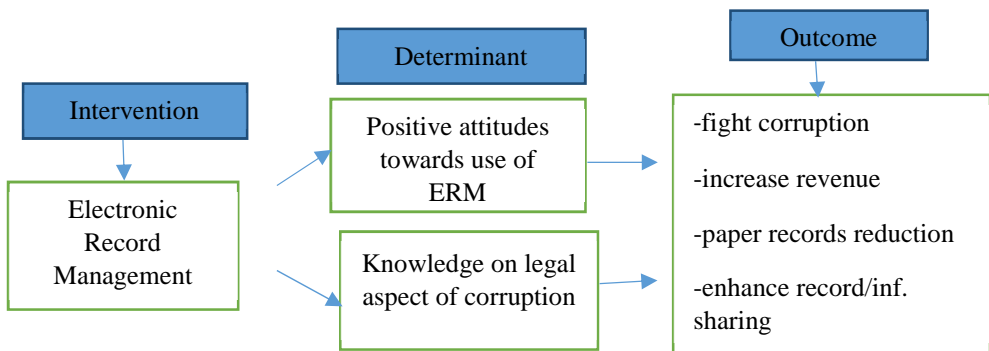
⁵ EHRs is an official health record system for an individual that is shared among multiple facilities and agencies. Usually installed to improve efficiency and quality of care and hence reduce cost of keeping and accessing records.

and hence, improve socio-economic development of the country in various dimensions.

Theoretical Framework

Theoretical framework is the foundation on which the entire research is based. A good theoretical framework identifies and labels the important variables in the situation that are relevant to the problem defined (Sekaran, 2005). According to Ennis (1999) theoretical framework can help to reveal patterns or relationships that assist in anticipating events or perceptions; and opening up avenues for change or improvement. The term theoretical framework is used interchangeably by various scholars in research to either refer to one of the following; metatheory, theory, or model (Fisher & McKechnie, 2005). Therefore, this paper is underpinned by Electronic Record Management (ERM) change models in place of the theory, since a model is a type of proto-theory, a tentative proposed set of a relationship which can then be tested for validity.

Figure 1: ERM Change Model (adopted from Change Model in Program Theory by Chen, 2005)



Electronic Record Management Change (ERM) Model adopted from Change Model in Program Theory by Chen 2005. This model has three components that are intervention, determinants and outcome. According to Chen (2005), intervention refers to activities or efforts introduced in order to change determinants while determinants are the courses of the problem and outcome indicates the concrete, measurable aspect of the programme goals. Therefore, when the intervention changes the determinants, outcome occurs. Causal relationship here refers to the assumptions that changing in one component creates changes.

In the context of this study it is assumed that the introduction and adaptation of electronic record management in the police force, judicial and health sectors are critical to enable address corruption practices done by officials in the respective

sectors hence, effective social services delivery and socio-economic development of the country. These are sectors which tend to have massive flow of individuals looking for services on day to day basis. Given the level of economic development of the country, manifestations of the challenges faced by these sectors are of two folds. Firstly, the government capacity to recruit sizable number of employees to cater for effective public services may be limited. Secondly, among many developing countries, majority of people live below poverty line. For that reason chances that more people engaged in social evils who will be involved in the police and judicial as well as more people seeking health services due to that there is an increasing chance of health problems. Hence, such double burden on the part of the government to provide services to relatively large number of people needs serious investment in electronic record management systems. This may reduce chances of spread of corruption practices initiated by either public servants working in respective sector taking advantage of the crisis or individual seeking services to manipulate regulations and procedures to get the limited services.

Therefore, the interventions such as investing on ICT facilities in these three sensitive sectors that provide social services to the majority of citizens is based on the need of officials to manage their activities and perform their duties both effectively and efficiently. This can simplify the keeping of records and retrieving customers' detailed information and track and monitor how officials perform their duties. However, for this to happen it requires trainings to the officials on the use of the facilities and instill in them positive attitudes towards its use and the benefits it provides. This may increase efficiency in terms of facilitating their work and improving services to their customers. On the other hand, understanding legal aspects of engaging in corruption is crucial to ensure that service providers (officials) and customers to avoid temptation to engage in unethical behaviour. As a result, it is expected that there will be good achievement in terms of addressing corruption practices, increasing government revenues through e-payment, improved performance through effective and timely information. All these will facilitate effective and efficient delivery of services and hence facilitate development of the country.

Methodology

This research work employed qualitative approach. The main focus of the approach is to learn what the problem means from respondents' views points rather than the meaning that the researcher brings to the research (Creswell, 2012). It is concerned with the way people understand things and give meaning based on the premise that knowledge is socially constructed. In addition to the above the approach aims to obtain in-depth information of the investigated issue instead of making a generalization. In this regard different views and perceptions of people regarding the state of corruption in the police, judiciary and hospitals

in Tanzania, extracted from various credible sources were analysed to get a better understanding on how electronic record management has been useful to fight the corruption problem. Given the focus of our study secondary data provided relevant and main adequate of information for our analysis. Therefore, as it was stated above the study used an extensive literature review from various credible and reliable sources to ensure validity of the research. These include but not limited to: reports and official information from relevant institutions at national and international levels which are related to regular review, examination, and analysis of the state of corruption. Other current and up to date sources were from peer reviewed articles and newspapers. The review consulted reliable sources in Tanzania like Legal and Human Rights Center (LHRC) reports released annually, Transparency International reports about Global Corruption Barometer (People and Corruption Africa Survey), Trade Economics which releases reports regarding corruption ranks of various countries, Tanzania included. Hence, through reliable websites, blogs, peer reviewed articles and newspapers the current information was obtained regarding the investigated problem in Tanzania in all areas of focus—the police force, judiciary and hospitals. Direct quotations of diverse views and perceptions about the state of corruption in Tanzania were used explain the phenomenon under investigation. Explanations included how electronic record management helped to address corruption. On top of that the statements explained on achievements attained and challenges in the establishment or adoption of ICT to support effective electronic management systems hence fighting corruption. Researchers were able to gather relevant and sufficient information readily available from a reasonable number of sources in relatively quick and inexpensive way. Three main categories formed the major parts for analysis of data, namely police, judiciary and hospital. Although the majority of issues found were similar, some variations existed based on the diversity on the nature of the services provided. Different experiences were unveiled from the selected quotations to get a better understanding of the phenomenon under investigation.

Results and Discussion

Police

Basically, the police force involves a group of men and women who operate in one of the repressive apparatuses of the state. They are tasked to maintain law and order and hence, they are equipped with many powers under law to arrest, search, restraint and investigate the commission of crime (Kapinga, 1990). Therefore, given the powers, in the course of performing their duties, there are chances that officers meet different challenges and therefore, engage themselves in unlawful practices. One among the major challenges is a temptation to be involved in

corruption practices. According to Hope (2016), the police corruption⁶ is one of the major problems facing the security sector all over the world. It is widespread and hence, need to be addressed to ensure effective and efficient delivery of services (Hope, 2016; Williams, 2002). Given the nature of the police activities it is therefore, imperative that the deployment of various electronic systems such as electronic surveillance or electronic payment system is taken into consideration as one of the important mechanisms to monitor their day to day conducts of duties. Our study in Tanzania concurs with the above findings. Among other things, the introduction of electronic payment systems on traffic police offenses was relevant to address corruption problem. The below quotation substantiate:

Payment of traffic fines through mobile phones and Max-Malipo⁷ instead of previous system will avoid pay the fines on the spot. In deed this will reduce the chances of corruption on the road as there will be no more cash handouts for traffic policemen. In this new system traffic police issue a receipt and motorist will pay via their mobile money account like MPESA or through Max-Malipo. In this situation electronic notification is given to the offender, who must pay the penalty within a week and failure to do so they will have to meet a surcharge. Daily News, 7.9.2013)

The above extract shows that, through the use of electronic record management system, the police force now is able to monitor all traffic police offences' payments which were previously done manually. In this case e-payment through Max-Malipo, significantly contribute towards reduction of corruption. As such, there has been an increasing trend of revenue collections by the police officers a result of the use of Maxmalipo payment system in the country. Coupled with improved technology, where currently there is interlink of network between police working in the traffic and those at head office. This helps in identifying any traffic offense such as over-speed it is easy to control unprofessional behaviour such as taking bribes. This is so vital given the nature of the police job—high-pressure job with discretionary powers which may tempt police officer to use that advantage for personal gain. The use of various forms of electronic devices to ensure that police conform to the high standard of honesty, integrity, ethical behaviour when they perform their day to day duties is important (Hope, 2017).

⁶ Police Corruption is any action or omission, a promise of any action or omission or any attempt of action or omission committed by a police officer, or a group of policers charged by police officer's misuse of the official position and motivated in significant part by the achievement of personal/private or organizational gain and advantage (Hope, 2016).

⁷ Max-Malipo is Tanzania's electronic payment solutions owned by Maxcom Africa Limited, it provides various electronic payment services closer to the people through a network of agents.

In underscoring the extent to which corruption has penetrated even among a section of public servants who are expected to show an exemplary example to address the problem, traders in some parts of Dar es Salaam region in Tanzania, provide a number of shocking evidences. Some police officers encourage corruption practices by forcing poster seller to falsify receipts on their behalf – enabling them to claim fake expenses. Even when selling to a police station. The poster seller narrates:

“They say I have to sell them for 30,000 shillings (\$ 13.36), but make the receipt out for 45,000 (\$ 20.04)so that 15,000 (\$ 6.68) goes to the police,” (Transparency International, 2015).

It is important to note from the above extract that, notwithstanding with the bad intention of both the police officer and the poster seller to collude, had it been the use of use electronic payment machines such as Electronic Fiscal Devices (EFDs) their intention to steal government revenues would never easily materialized. This is because through the use of EFD machine, the government’s responsible revenue collectors are able to track all payment and access its due tax from any transaction made. Indeed, identifying the challenge of payment through manual system, most of government institutions and agencies are now in demand of electronic receipts of any transactions made by their employees. In this regard, the use of EFDs by TRA has a direct relationship with the improving services provided in all sectors in the country due to increased government revenue. This therefore, goes back to improve services in the mentioned sectors. The then Tanzania Minister of Finance, the late Hon. Mgimwa narrates:

The innovative system ascertained by Information Technology (IT) entrepreneurs has reduced congestion at office payment desks, addresses tax evasion, curbs cheating(corruption) and increases efficiency. Tax payers can now pay taxes and dues promptly at their own convenience” (Daily News, 7.9.2013)

Understanding the importance of the electronic record management systems the views of the then Mayor-Kinondoni Municipal Yusuf Mwenda collaborate with the above quotation. He says;

“Previously, we were facing difficulties to meet our revenue targets...we are now happy that collections have tremendously gone up”

(<http://maxcomafrika.com/testimonials>, visited on 21.06.2017).

The above extract quoted during the introduction of new e-payment system in the respective municipality aiming at increasing revenue to cater for both recurrent and development expenditure. It can be noted that the use of electronic record management system has not only been supportive in a direct and better performance of police duties by avoiding corruption practices in the police services, it has also enabled government agencies responsible to collect various

forms of payments such as bills and taxes that increase the revenues. In turn, this has enabled an increased income to cater for more social services. Hence, leading towards improvement of the development of the country by addressing poor investment of ICT in the public sector as well as reduce poverty level of the majority of the people.

Judiciary

The judiciary is the authority with final decision in dispensation of justice in the United Republic of Tanzania (LHRC, 2016; URT, 1977). Judicial functions are administered by various courts established in accordance with the Tanzania law⁸. It is expected that in order for the judiciary to protect and promote human rights and get rid of corruption practices, judges would be independent from any influence in order to do justice without fear or favour, affection as well as observing their codes of conducts.

Our observation regarding the extent to which judiciary works in the country to provide justice and hence, avoid corruption practices in the course of delivering services in the country unveils a number of issues. It was found out that despite commendable job undertaken by the government to improve judicial system, there are a lot of setbacks in terms of providing timely services which is likely to breed corruption practices as the following quotation state:

“Access to justice in Tanzania has been for a long time affected by delays and backlog, shortage of judicial facilities and workers is one among the reasons” (LHRC, 2016).

Indeed such delays may lead into corrupt officials to take advantage of seeking bribes for frustrated customers. Coupled with lack of modern ICT facilities to improve judicial activities and monitor how customers are treated while seeking judicial services, clients are likely to be more vulnerable in the hands of corrupt officials.

Notwithstanding the goals of The National Information and Communications Technologies Policy of (2003), such as to increase the size and quality of ICT skilled human resources, that is crucial to increase productivity of its work force and achieve its intention to be a model user of ICT (URT, 2003). A report from a study entitled *ICT Future Direction for the Tanzanian Courts: A Road Map*, which reviewed the situation of ICT in the judiciary, found out that there were several impediments towards realising electronic record management in the sector. The following are some of the issues raised access and use of ICT facilities within Tanzania courts:

While the Judiciary estimated that it had over 6,000 staff members across all the courts, there were ICT support of less than 10 people for the whole Judiciary, with five of these

⁸See Articles 108, 114 and 117 of the Constitution of the United Republic of Tanzania of 1977; provisions of the *Magistrates Court Act*, Cap 11, [R.E. 2002].

supporting the Court of Appeal and the High Courts, two supporting the Labour Court and two supporting the Commercial Court.(International Records Management Trust, 2011)

While computers were being introduced gradually into the Judiciary, the numbers were very limited, and in most areas of the Judiciary, typewriters were still being used. Where computers had been introduced, there was little connectivity between or within the courts. Where Local Area Networks had been established, these were more for Internet access rather than for information sharing. (ibid., 2011)

The above extracts indicate that the challenges caused by facilities and connectivity leave a lot to be desired in ensuring effective electronic record management in the Tanzanian Judicial. Such poor investment in ICT facilities hinder, to a large extent, the provision of and timely access to justice. In turn, it leads to ineffectiveness in court processes such as recording and transcribing, poor tracking and understanding and poor management of files. It cannot be overemphasised here that such lack of appropriate systems of keeping information and easy tracking of records and up-to-date information attracts in cheating and hence, corruption practices.

Certainly, given the poor level of development and poor record management, cheating is a common scenario featured in many other developing countries. In respect to that Asonibare & Akaje (2017) emphasize that addressing ineffective and inefficiency delivery of justice in Nigerian courts and ensure that citizens are served adoption of ICT is crucial. Hence, access and effective use of electronic record management systems enhance quickness, accessibility; accountability and transparency which will in turn increase the chances to fight corruption in the court that is likely to be done by various court stakeholders like judges, litigants, and court staff. It is further argued that the role of judiciary as one of three main government branches needs to be completely independent in delivering its services to the people in an impartial way.

As highlighted above, it can be argued that the investment of ICT facilities in court in terms of computerization has a positive and direct relationship with productivity of judges measured by a number of cases solved per judge (Pacini et al., 2003). This is evidenced in some countries with high computer literacy to both citizens and court stakeholders. A good example is in South Korea where the effective use of ICT has enabled some judges in the country to adjudicate up to 3,000 cases a year by managing up to 400 a month and hears up to 100 plus a month. This is far and above the international average. The case above shows that investing in ICT facilities and providing regular e-record management training to civil servants responsible for record keeping to all sectors of the economy is important as it will expose them to the new ways to improve their performances.

Nyasha (2012), in the study which sought to find the attitude of motor industry employees in Zimbabwe towards the use of fiscalised electronic device, found similar results. The study unveiled that employees who are not well trained on ICT and with low educational level fail to use fiscalised electronic devices because they lack the knowledge on how best to use them. In addition, employees who negatively perceived the use of fiscalised electronic devices due to lack of knowledge on their use, and therefore, some resist using them. Hence, the need to invest in ICT facilities and providing training opportunities among civil servants who work in sectors prone corruption practices is imperative.

In spite of the above mentioned challenges facing the judiciary, there have been good rays of hopes regarding the achievements on electronic record management systems at some high levels, though limited to some regions, Dar es Salaam being mainly favoured. This has, to some extent, helped to improve productivity in the justice system in terms of timely access to justice due to reducing time taken to finalise and reducing backlog of cases. The following statement unveils the achievement reached:

In the High Court in Dar es Salaam, case lists are now displayed on television monitors in public areas and members of the public can view dates for cases as well as the names of assigned judges. E-Billboard software is being used for this. Digital recording equipment has been introduced into the courts to assist judges when recording evidence. The 'For the Record' system has been installed in the Court of Appeal, High Court, Commercial Court, Land Court and Labour Court. (International Records Management Trust, 2011)

Undoubtedly, investing in ICT equipments to improve cases proceedings is worth noting. This is definitely significant towards making sure that corruption practices are avoided and dealt with accordingly whenever they emerge. The achievement in electronic record management judiciary sector in higher level courts in Tanzania and Rwanda is said to be one of the best practice in Africa (Vilquin & Bosio, 2013). Therefore, more initiatives need to be undertaken by the government to invest highly in the use of ICT in the judicial towards the improvement of access to justice. This is so critical in delivering of social services to the people and therefore contributes to the socio-economic development of the country.

Hospital

Effective provision of health services to the citizens is one of the main strategies to enable any country to reach high level of both economic growth and human development. In this regard, health sector is one of the major areas that require high investment (panos.org.uk/wp-content/files/2011/01/panos-londonICTs_and_tanzania-policy.pdf, accessed on 6th August, 2017). Recognizing the potential of Information and Communication Technology (ICT)

in transforming healthcare delivery is critical to enable information access and supporting healthcare operations, management, and decision making (URT, 2013). Among several strategic objectives in the health sector is the use of electronic record management systems (eHealth Solutions) outlined the responsible ministry in the country are; Firstly, to enable electronic financial management to ensure effective collection, allocation, and use of health financial resources at all levels in accordance with health plan priorities. Secondly, to strengthen an electronic HR system to improve planning and management of health professionals at all levels (URT, 2013). Definitely the contributions of these in preventing and dealing with corruption cannot be overemphasized. A Paper on Joint and Aligned Investment in Digital Health Information System presentation by President's office, Regional Administration and Local Government, 2017, emphasized that the Government of Tanzania Hospital Management Information System (GoT-HoMIS) had gone through improvements. Since the system incorporate various core functionalities to serve the purpose, such as to allow patient profile to be available across facilities through the use of centralized database. Furthermore, the said system integrates the government electronic payment gateway to facilitate cashless environment at health facilities. Not only that, but also, the system allow the incorporation with other systems in health sectors such as National Health Insurance Fund (NHIF), electronic Logistics Management Information System (eLMIS) and District Health Information System (DHIS) so as to simplify bills paying processes.

In respect to the above efforts to improve health services provision, Hon. Anthony Mavunde, Member of Parliament and Deputy Minister responsible for Labour, Employment and Youth connected Biometric system and CCTV at Dodoma General Hospital. This was an attempt to address customers' complaints regarding how officials provided services. In the event of launching the use of those systems Hon. Anthony Mavunde said:

“These cameras record both audio and videos as a response to citizens' complaints regarding challenges they face while looking for health services. Now it is easy for the patients to identify officials who do not performing their duties professionally”. (<https://michuzi.matukio.blogspot.com/2017/07/naibu-waziri-mavunde-azindua-mfumo-wa.html>, accessed on 25th July, 2017)

In a different scenario the application of electronic record management systems through e-payment has received a great attention by the citizens and high level officers of the government. The acceptance and recognition of the e-payment systems has enabled significant improvement of revenues collection as opposed to the previous manual systems in most of hospitals and health centres. Such outstanding high rate of an increase of revenue within a short period of time demonstrate that there were chances of corruption practices on the part of officials

responsible in revenue collection. The following statement from the Minister of State in the President's Office (Regional Administration and Local Government) Mr. Suleiman Jaffo, verify our claim regarding previous corruption practices:

"Mbeya hospital now collects 500 million (\$ 222,717.14) per month from 70 million (\$31,180.40) while Sékou Touré Hospital in Mwanza now collects 3.5 million per day from between 150,000/= (\$ 66.81) to 200,000/=(\$ 89.08) per day. We have seen tremendous increase in revenue collection since we started implementing the electronic revenue collection system in hospitals.(Daily News, 14/05/2016 accessed on 9/08/2017 from allafrica.com/stories/201605160647.html)

Likewise, when Temeke intended to launch Max-Malipo Tax Collection System, the success was referred from the then Mayor of Kinondoni Municipal Council Mr. Yusufu Mwenda who unveiled similar situation of sudden rise of revenue collection through e-payment system.

The new system is anticipated to boost revenue collection from 31billion (\$13,808,463.25) to 41 billion(\$ 18,262,806.23) annually. The system has proved effective in other places like Kinondoni Municipal council where it was put in put to test and enabled sharp increase in annual revenue from 18 billion (\$ 8,017,817.37) to 34 billion (\$ 15,144,766.14) from 2012/2013 to 2013/2014 financial year. (Daily News, 30/06/2015,accessed on 5/8/2017 from <http://allafrica.com/stories/201506300549.html>)

In light of the above evidences on effectiveness of electronic record management systems in terms of the quick increase in revenue collection through ICT solutions is critical to directly and indirectly fight corruption. Ruxwana et al. (2009) in the study that focused on determining factors perceived to influence effective use of ICT applications in rural hospitals in the Eastern Cape Province found out that despite the availability of e-health solutions there were no adequate facilities to cater for the demand. The study recommended the need to put special attention to improve both soft and hardware infrastructures and train staff on the use ICT facilities. Likewise, for effective record management to improve provision of social services free of corruption to the majority of Tanzania population living in both rural and urban areas, and investment and adoption of ICT facilities cannot be overemphasized.

Conclusion

The paper has demonstrated that the role of electronic management systems in facilitating effective and efficiency performance of activities and delivery of social services in both private and public sectors are critical. This is for the reason that ICT helps to create, store, and track important information in digitalized form through the use of computers and application software as opposed to manual

systems which is prone to corruption in service delivery process. Several studies proved the connection between ineffective electronic record management and corruption practices. Further, different scholars have shown that good e-record management has a significant impact on fighting corruption. However, despite all these studies there was a dearth of literature regarding the contribution of electronic management system to fight corruption in some public service sectors in Tanzania. Therefore, this paper examined the contribution of electronic management systems to fight corruption in Tanzania in three public service offices, namely: police, judicial and hospital. Mixed findings were unveiled from the analysed documents which formed the basis for our discussion. The major findings were: the government of Tanzania has made significant initiatives to ensure that there is effective use of ICT facilities in all public services. In many ways such initiatives facilitated to address corruption cases. Good practice in terms of establishing and use of ICT facilities was observed in some case proceedings on higher level judicial offices, e-payment systems installed at regional hospitals as traffic polices. Before these systems were introduced a lot of revenues were stolen through corruption practices done by some dishonest public officials.

As such the achievements attained reflect the fruits of the initiatives made in embrace the objective of the National Information and Communications Technologies Policy of (2003). The policy intends to increase the size and quality of ICT skilled human resources that is crucial to increase productivity of its work force and achieve its intention to be a model user of ICT. However, in spite of the best practices observed in some offices and at some levels of the effective establishment and use of ICT and hence reduced corruption practices, the evidence indicates more investments on training staff and installing ICT facilities that promotes effective use of electronic management systems. This is critical to ensure that public offices are prohibited from engaging in corruption practices so as to improve delivering of social services to the citizens. It is recommended here , for this to happen, the government of should take a leading role in putting initiatives to ensure all government and private institutions are adopt and use e-record management system on their daily service delivery processes to promote sustainable socio-economic development within the country.

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