INFLUENCE OF DIGITAL PAYMENT SYSTEMS IN CURBING OF PROCUREMENT FRAUD IN STATE CORPORATIONS IN KENYA

Panya, K. O., & Abuya, J. O.

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[1] Panya, K. O., & [2] Abuya, J. O.

[1] Research Fellow, African Institute for Supply Chain Research(AISCR), South Africa
[2] Senior Lecturer, School of Business & Economics, Kibabii University- Bungoma, Kenya

ABSTRACT

The main objective of this study was to find out the influence of digital payment systems in curbing procurement fraud in state corporations in Kenya. Specifically, the study identified the influence of Mobile wallets, QR payments, 3D secure and Electronic Funds Transfer (EFT). The research design employed in this study was descriptive. This study relied heavily on secondary data as is the case with most desktop research study. The study reviewed journal articles, unpublished papers and conference papers on influence of digital payment systems in organizations. The paper employed a desktop approach to provide answers to the research objectives. Specifically, the paper used content analysis to gather information from peer reviewed publications such as, journal articles, environmental organizations reports and books. The study found that while digitization is important, other factors like institutional incentives and capacities and strong leadership are key for enhanced efficiency, improved service delivery and reduced opportunities for corruption. The Study found that the traction of digital technologies in reducing fraud and corruption entirely depend on the institutional context. Any system will only be as good as the practices that complement it and the human face behind it. Digitization of government systems was found a more effective method of blocking leakages or channels of leakages for revenue generation, salary payment, contract payment and an end-to-end transaction involving the governments. The study posits that, electronic payment can help reduce corruption in Africa and in most developing countries as it promotes transparency. The study recommended that a number of reform actions are needed for a better public procurement system including, (i) Strengthening Compliance for enforcement, (ii) the need for an end-to-end E-procurement system for all Procurement Processes, (iii) Need for technological Skills among procurement professionals in public sector and need for transparency and accountability in the entire procurement process in Kenya.

Key Words*: Digital Payment Systems, & Procurement Frauds*

INTRODUCTION

Corruption is detrimental to the social, economic and political development of any country. The theft of public revenues is a daily ethical failing associated with corruption in most African countries. Yet many government sectors and agencies in Africa have failed to use ICTs to create the required culture of transparency, (Aliyu et al, 2020). The culture of corruption has become endemic in Kenya. Public Institutions are being used instead for the personal enrichment by politicians and bureaucrats and other corrupt private agents (individuals, groups, and businesses), (Kahare & Chege, 2021). Corruption in public procurement has persisted primarily because there are people in power who benefit from it and at the same time, existing governance institutions lack both the will and capacity to stop them from doing so (Panya, 2020). Statistics from Transparency International (TI), indicate that the Kenyan government loses about one third of the national budget to corruption through non-compliance to set regulations, with 80 percent of all corruption cases before the ethics and anti-corruption commission of Kenya (EACC) being about utter impunity to regulations. Data from EACC shows that corruption is very high in County Governments, State Corporations, National Government departments and Ministries (Panya & Were, 2018).

Electronic payments have been assessed as a more effective method of blocking leakages or channels of leakages for revenue generation, salary payment, contract payment and an end-to-end transaction involving the government (Jatau & Dung, 2014). The World Bank (2014) identified some significant advantages the wide spread adoption of electronic payment has including the ability to overcome costs and physical barriers to payments including governmental revenue collection; and opportunity to rapidly scale up financial services using various technologies such as smartphones, retail points of sale, etc. (Aliyu et al, 2020). In Korea, the implementation of a national e-procurement system has brought about a notable improvement in the transparency and integrity of public procurement administration. In 2002, Public Procurement Service (PPS), the central procurement agency of Korea, introduced a fully integrated, end-to-end e-procurement system called KONEPS. This system covers the entire procurement cycle electronically (including a one-time registration, tendering, contracts, inspection and payment) and related documents are exchanged online. KONEPS links about 140 external systems to share and retrieve any necessary information, and provide a one-stop service, including automatic collection of bidder's qualification data, delivery report, e-invoicing and e-payment. It provides information on a real-time basis (OECD, 2016).

In United Kingdom, the state organs have been facing several types of fraud including; embezzlement of funds and internal theft. The UK fraud losses totaled to 479 million pounds. This promoted FFA UK to lead the collective light against fraud in the UK. In the U.S.A according to the Report of the USA National Commission on Fraudster Financial Reporting (NCFFR), in the majority of the studied cases, state agencies management, such as chief executive, president and chief financial officer, were the fraudulent perpetrators. In some cases, it was found that there were made intentional false disclosures from the accountant throughout falsified documents and records (NCFFR, 2015 & Masengeli, 2019). In working to build the right supplier relationships, the United States focuses on doing business with contractors who place a premium on integrity, performance and quality. To this end, government agencies have been directed to improve the quantity, quality, and utilization of vendor performance information through the use of two systems. Vendor past performance information including an identification and description of the relevant contract, ratings across six dimensions (quality, schedule, cost, utilization of small business, etc.), and a narrative for each rating is contained within the Past Performance Information Retrieval System (PPIRS).

Additional information regarding certain business integrity issues, including contracts terminated for default or cause, information about criminal, civil, or administrative procedures related to a federal contract; and prior findings that a contractor is not responsible, is captured in the Federal Awardee Performance and Integrity Information System – FAPIIS (OECD,2016). In Germany, The Federal Procurement Agency in the Ministry of the Interior has set up an electronic workflow that helps centralize all information related to the procurement activities of the Agency and provide a record of the different stages of the ongoing procurement procedures. All files are stored in a document management system. The Federal Procurement Agency keeps records to maintain transparency and provide an audit trail of procurement decisions (FPA, 2016).

Regionally, Ghana is making progress in digitizing payments, with 37% of the value of all payments now made digitally. The shift to digital payments is supported by good internet connectivity, levels of financial inclusion in Ghana above the regional average, expansive mobile money agent networks, solid payments infrastructure, and continuously improving regulation spearheaded by the Bank of Ghana -BoG, (Amoah, et al, 2017). In South Africa, financial fraud costs government trillions of Rands thus damaging the national reputation and government entities are among the most common victims. In East Africa, according to KPMG (2012), Burundi, Uganda, Kenya and Tanzania make up 74% of all the financial fraud cases in the East African region with Kenya standing out with 23% of the reported cases, Burundi at 21%, Uganda at 18% and Tanzania at 12%. Most fraud in East Africa target governments and financial sectors with misappropriation of funds, bribery and corruption extremely high in the organizations in these countries (OECD, 2016).

The Kenyan government loses about one third of the national budget to corruption through non-compliance to public finance regulations, with 80 percent of all corruption cases before the Ethics and Anti-Corruption Commission of Kenya (EACC) being about embezzlement of public funds through corrupt deals by politicians, (TI, 2014). Data from EACC shows that corruption level is moderately high in government departments. Procurement Department, finance, public service board, road and public works are the government Departments where corruption is most prevalent, (EACC, 2015). Corruption in Kenya is systemic and goes beyond individuals to the structural and institutional levels. Bribery, theft in County revenue, procurement irregularities, nepotism, shoddy roads and bridges construction, forgery of documents, conflict of interest in awarding of tenders and recruitment of staff are the most prevalent forms of corruption experienced in government, (Panya &Were, 2018).

Corruption has resulted the country's underdevelopment, poor service delivery, poor road construction, budget deficits, denial of public participation in project selection and budgeting process, unfair recruitment process, hampering service delivery as public funds are embezzled, widened gap between the rich and the poor and enormous loss of Government funds, (Mwangi, 2017). Several surveys have been completed and much evidence has been gathered about the extent of bribery in Kenya. Surveys conducted between 2008 and 2012 indicate that between 30 and 56 per cent of respondents encountered bribery in their interactions with both public and private organizations (TI-Kenya, 2008, 2012). The mean size of bribe was approximately US$48. The 2019 Corruption Perception Index released by Transparency International (TI) ranked Kenya among the most corrupt countries at 137 out of 180 countries scoring 28 out of 100 points.

Statement of the Problem

According to EACC, corruption is a major threat to businesses and investments. Corruption undermines policies designed to encourage economic development, (EACC, 2017). In 2015, the Kenyan Ministry of Health entered into an agreement with five global companies for the supply of medical equipment to two hospitals in

each of the 47 counties at Ksh. 3.8 billion per year for a seven-year period. The Senate Ad hoc Committee investigating the managed equipment services project concluded that the project was a criminal enterprise shrouded in opaque procurement processes and that the Ministry of Health relied on a faulty tool (public sector comparator) to justify a predetermined outcome in relation to the award of tenders that likely resulted in imprudent use of public finances, (Obala,2018, Odanga,2018, Menya, 2016). According to (AOG report, 2015/2016; Kimathi, 2019; & Leftie, 2019), the Ministry of Health officials manipulated IFMIS to log fraudulent transactions in the 2015/16 financial year including payments to phony suppliers; diversion of funds and double payment of goods. Ksh. 2.4 billion pending bills arisen from illegal over expenditure Kshs. 515 million diverted from the National AIDS Control Programme. Ksh. 889 million funds to be disbursed to county governments to support their free maternity care programmes and for the supply of 100 portable mobile clinics diverted. In fact, by 2018, the procured containers are still lying idle at a warehouse in Miritini Mombasa, (Obala, 2018).

In 2017 Global Fund Audit Report on the National Tuberculosis, Leprosy, and Lung Disease Programme (NTLDP) found that from the period of 2014-2016 fraudulent per diems valued at KES 583,000 (US$5,744) were given to people who had not attended activities. The investigation further found no reasonable assurance of delivery of services amounting to KES 5,766,200 (US $56,813), Global Fund, (2017). In 2018, it was reported that 37 CT scanners were procured at an inflated cost of Ksh. 227 million per unit while the market price at the time was between Ksh. 40-45 million under a deal between the Kenyan and Chinese governments during the 2015/2016 calendar year. The Ministry of Health reported that they abandoned the government-to-government deal and opted to award the tender to Neusoft Medical Systems Co Ltd, a Chinese firm, (Oruko, 2018).

A comprehensive literature review on the influence of digital payment systems in curbing procurement fraud in state corporations as indicated by Aliyu et al, (2020); Kahare & Chege, (2021); Panya, (2020); Jatau & Dung, (2014); OECD, (2016); Masengeli, (2019); Amoah, et al, (2017); KPMG (2012); Panya &Were, (2018); Mwangi, (2017); Obala, (2018); Odanga, (2018); Menya, (2016); Kimathi, (2019); Leftie, (2019); Oruko, (2018); OAG, (2016); EACC, (2018); and Masengeli, (2019); show that most of the research has focused on the benefits of digital payment to organizations leaving out the influence of digital payment systems in curbing procurement fraud. There is minimal research on the influence of digital payment systems in curbing procurement fraud. The existing research has not provided clear evidence on the link between reduction in fraud and the implementation of the digital payment system. This study therefore shall investigate the influence of digital payment systems in curbing procurement fraud in State Corporations in Kenya.

Objective of the Study

This study sought to establish the influence of digital payment systems in curbing procurement fraud in state corporations in Kenya.

LITERATURE REVIEW

Digital payment is a way of payment which is made through digital modes. In digital payments, payer and payee both use digital modes to send and receive money. It is also called electronic payment, (Franciska & Sahayaselvi, 2017). Electronic payment can help reduce corruption in Africa and most developing countries as it promotes transparency and integrity of transactions on which international and domestic remittances can build on (Aliyu et al, 2020). Electronic payment via the internet can check tax evasion and reduce double or multiple taxations, (Jatau & Dung, 2014). Digital payments no longer require a physical instrument to be presented. Instead, they might use digital or virtual card accounts that enable payment through digital portals, mobile apps, social networks and APIs (Delloit, 2018). Digital solutions allow for the safe and cost-efficient design and provision of financial

services and products, and hence for business models that can sustainably serve financially unserved and underserved households and Small and Medium Enterprises (SMEs), (GPFI), 2017. Currently available digital payment systems include: Banking card; Mobile/Digital wallets; Unified Payment Interface (UPI); QR payments; EFT enabled; 3D Secure Payments; Unstructured Supplementary Service Data (USSD); Immediate Payment Service (IMPS); Real Time Gross Settlement (RTGS); Electronic Fund Transfer (EFT); and Mobile Banking (Franciska & Sahayaselvi, 2017).

Mobile Wallets and Curbing of Procurement Fraud
Often Information and Communication Technology (ICT) is assumed to automatically result in a reduction of corruption, but its relationship is rarely tested, and the testing usually results into mixed and even contested results (Žuffová, 2020). ICT's effect on corruption remains empirically underexplored due to a lack of measurements, (Duru e Salam et al,2021). Mobile money is a digital financial innovation that enables electronic payment transactions using mobile phones, (Blumenstock et al., 2015; Krolikowski, 2014). A Digital wallet provides a way to carry cash in digital format. Credit card or debit card information are linked to digital wallet application or money and transferred in online to mobile wallet. Instead of using physical plastic card to make purchases, bank clients pay through smartphone, tablet, or smart watch (Franciska & Sahayaselvi,2017). Digital wallets are composed of both digital wallet devices and digital wallet systems. A mobile wallet is simply the digital wallet on the mobile handset. Presently there are further explorations for smart phones with digital wallet capabilities, such as the Samsung Galaxy series and the Google Nexus smart phones utilizing Google's Android operating system and the Apple Inc. iPhone 6 and iPhone 6 Plus (Gupta et al,2020). With recent advances technologies, digital payments are having an impact on our daily lives and beginning to offer interesting and advantageous new services (Franciska & Sahayaselvi, 2017).

An effective procurement system plays a strategic role in governments in stemming mismanagement and waste of public funds. Of all government activities, public procurement is one of the most vulnerable to fraud and corruption, (Panya et al, 2021). The direct costs of corruption include loss of public funds through misallocations or higher expenses and lower quality of goods, services and works. Those paying the bribes seek to recover their money by inflating prices, billing for work not performed, failing to meet contract standards, reducing quality of work or using inferior materials, in case of public procurement of works. This results in exaggerated costs and a decrease in quality (OECD, 2015). Digital solutions allow for the safe and cost-efficient design and provision of financial services and products, and hence for business models that can sustainably serve financially unserved and underserved households and Small and Medium Enterprises GPFI, (2017).

Transparency and accountability are central to the fight against corruption. Corruption's most pernicious effect is that it undermines faith in public institutions. Because corruption is a function of the opportunity to abuse public office and the risk of detection, ICT is an invaluable tool with which to swell both the demand and supply sides of good governance, that is, the willingness and capacity to demand as well as the willingness and capacity to account, (Asian development Bank, 2017). Studies reveal that ICT, particularly the internet, has brought about significant technological innovations and sophistication in electronic networks which had consequently paved the way for new electronic payment methods and platforms. In both developed and developing countries, electronic payments have gained penetration, (dos Santos & Kvangraven, 2017). According to (Asian development Bank, 2017), ICT-driven initiatives play an increasing role in good governance. In Asia (as elsewhere), development agencies can work with civil society to fight corruption with ICT

interventions for online right-to-information requests, crowdsourced reporting, online corruption reporting, and issue reporting across a broad spectrum of outreach activities that foster institutional environments, promote cooperation, encourage a broad mobilization, and develop capacities.

A study by Vasudevan (2006) found mixed results for ICT impact on corruption and concluded that key policy choices, and not merely the technology employed, helps to reduce corruption. Furthermore, Lio, Liu, and Ou (2011) used a panel analysis of secondary data for 70 countries and found that Internet adoption is positively related to corruption reduction. However, they argued that the causality between Internet adoption and corruption is bidirectional (DUru e salam et al, 2021). A report by the world bank in 2012 argues that developing countries would realise annual savings of about 1% in GDP by adopting electronic payment systems, (dos Santos & Kvangraven, 2017). Maisiba & Atambo (2016) studied the effect of an electronic tax system on revenue collection efficiency in Kenya. They found that while the system is effective and efficient, the lack of computer knowledge by government staff, poor internet and epileptic power supply amongst many others did not let the country reap the full benefits of the system. Many of these innovations provides a fast, reliable and secure means of clearing and settling payments and also leaves audit trails. Recent developments in digital payment technologies may open up further opportunities with the introduction of the New Payments Platform ("NPP") which enables real-time, data-rich payments addressed to emails or mobile/ ABN numbers (instead of BSB and account numbers), (Delloit,2018).

QR Payments and Curbing of Procurement Fraud

Information technology (IT) has become a critical component of well-functioning economies, underpinning economic growth over the past decades. Organizations of all sizes in both the public and private sector are becoming ever more interconnected and reliant on IT products and services, such as cloud-based systems and artificial intelligence, (BIS,2020). Corruption in procurement is rampant, with estimates of the cost of capital investment projects being consumed by corruption ranging from 10% to 30%, with repercussions that go far beyond the price tag of capital projects as it impacts the poorest sections of society disproportionately, (World Bank,2020). The emerging technologies in ICT bring new detection and monitoring capabilities, reducing the burden on investigators and enabling the design of smarter enforcement measures. Transparent data platforms can strengthen oversight mechanisms and enhance effective information sharing with other government departments (UNODC,2020). The broadening and deepening of global digitization of governments and citizens is changing the face of public sector governance and its impact on anti-corruption. While digitization as a 'foundational' factor is important, other factors like institutional incentives and capacities and strong leadership are key for enhanced efficiency, improved service delivery and fewer opportunities for corruption (Worldbank,2020).

Digital financial services are providing substantial opportunities to rapidly advance financial inclusion, (GPFI),2017). Most institutions have their e-wallets and some private companies. e.g., Paytm, Freecharge, Mobikwik, Oxigen, Mpesa, Airtel Money, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, SpeedPay etc., (Gupta,2020). The Information Communication Technologies (ICT) change the human life by making it easier (ETS, 2007). ICT transforms many businesses in various industries by compiling, arranging and modifying different business processes. However, these new technologies have contributed to the increment of cybercrimes (Craig, 2017, Ivan Georgiev, 2017). In order to ensure the security of systems, security mechanisms such as authentication and access control of unauthorized persons to enter the system to prevent the seizure of information entering the system has been developed. So,

governments need to new mechanism for the information security, (Yılmaz & Arif Sarı,2019). According to (Surekha, et al,2015), a QR code (Quick Response) is a specific matrix barcode, readable by dedicated QR barcode readers or smart phones through a high-resolution camera. The QR code consists of black modules arranged in a square pattern on a white background. The information usually encoded in the QR code is text, alphanumeric numbers, URL or other data. The QR Code system has become popular due to its quick readability and greater storage capacity compared to standard barcodes (Gupta,2020).

Corruption in public procurement has wide-ranging ramifications for the economy and delivery of public services. The need to tackle corruption in public procurement is based on the importance of public procurement in public spending and economic activity, the prevalence of corruption in procurement and its impact on how public money is spent, private sector investment, and the availability and quality of public services (Worldbank,2020). Reducing the human interface in service delivery helps governments to curtail the risk of rent-seeking behavior. Yet, the traction of digital technologies in reducing fraud and corruption depends on the institutional context. Any system will only be as good as the practices that complement it, (UNODC 2019). According to (Wang et al,2019), technology such as use of biometric systems in procurement authentication are increasingly replacing traditional password- and token-based authentication systems. Security and recognition accuracy are the two most important aspects to consider in designing a procurement system. Firewall, intrusion detection systems and vulnerability scanner create the second step security mechanism. But these mechanisms are not sufficient alone. Because, each of them focuses the different point for the security mechanism., (Yılmaz & Arif Sarı,2019).

Surekha, et al, (2015) posits that, high capacity of data encoded, small printout size, Chinese/Japanese (kanji and kana) capability, dirt

and damage resistance, readable from any direction in 360 and a structure append feature are needed for QR code generation so that it can be efficiently used. QR-Codes, a type of 2D barcodes, are more efficient than traditional 1D bar codes. Due to the open specification of QR codes, many internet applications and mobile services rely on them. QR code is read by an imaging device such as a camera and the required data are extracted from patterns present in both horizontal and vertical components of the image. QR codes are often not the easiest and most convenient method of information retrieval. QR codes applications include product tracking, item identification, time tracking, document management, general marketing (Surekha, et al, 2015).

3D Secure and Curbing Procurement Fraud

According to (EMVco,2018), the 3-D Secure authentication protocol is based on a three-domain model where the Acquirer Domain and Issuer Domain are connected by the Interoperability Domain for the purpose of authenticating a Cardholder during an electronic commerce (e-commerce) transaction or to provide identity verification and account confirmation. The 3-D Secure authentication protocol supports two Message Categories: Payment Authentication-Cardholder authentication during an e-commerce transaction. Non-Payment Authentication -Identity verification and account confirmation. 3D stands for "three domains." The first is the card issuer; second, the retailer receiving the payment; and third is the 3DS infrastructure platform that acts as a secure go-between for the consumer and the retailer. 3D Secure is an additional step you can enable to happen every time a card transaction is made online. It enhances security measures for shoppers and vendors alike.

A 2014 study from the G20, The Opportunities of Digitizing Payments, attributes the impact of improved digitization to increased participation of women in the economy through greater control of finances and budgeting, (GPFI),2017. Payments are typically the entry point in the use of financial

services by the previously excluded, for example through the receiving of remittances or social benefit transfers. The initial use of financial services by formerly excluded groups is often through digital services, (Surekha, et al,2015). Digital payment systems have the potential to lead the unbanked to access other formal financial services, as evidenced in the GPFI Markets and Payment Systems Subgroup Stocktaking Report. Developing an inclusive digital payments ecosystem is therefore key to providing basic banking services to the financially excluded and as a stepping stone to provide access to other financial services (GPFI, 2017). Public procurement accounts for between 10-25% of public spending globally constituting a significant proportion of public spending. This figure is often substantially higher in countries where the state participates significantly in economic activity and directly provides services. Public procurement is often the single largest channel for government spending, the single largest source of commercial spending in a country, and the dominant means for translating public money into public services (Aliyu et al, 2020).

Corruption in public procurement continues to be a substantial issue in developed as well as developing countries and large public scandals involving firms such as Odebrecht, Siemens and Airbus have demonstrated that corruption in public procurement happens in some of the most advanced economies (Worldbank,2020). Fraud and corruption in public services increase the costs of procurements by an estimated 20%. Estimates from a variety of sources indicate that corruption in procurement is frequent and extraordinarily costly. Over the years, international organizations have consistently suggested that between 10-30% of the cost of capital investment projects is consumed by corruption, (UNODC 2020). Corruption results in the provision of sub-standard infrastructure, which increases accidents and wear and tear costs, inflates the user-charges required to pay for services, and acts as an extra tax on the citizens. The cost of corruption is then borne by the poorest

citizens who are most dependent on public. It also robs school children of safe and well-built classrooms, reduces the quality of their education by limiting their access to textbooks and school supplies, and endangers their health and the health of their communities as publicly procured medicines are privatized and become inaccessible to the poor (Worldbank,2020).

The 3-D Secure authentication protocol can be initiated through three Device Channels: App-based—Authentication during a procurement transaction on a Consumer Device that originates from an App provided by a 3DS Requestor (merchant, digital wallet, et al) in order to leave audit trails of such transactions. For example, an e-commerce procurement transaction originating during a check-out process within a merchant's app locally or internationally. Browser-based—Authentication during a procurement transaction on a Consumer Device that originates from a website utilizing a browser. For example, an e-commerce transaction originating during a check-out process within a website on a Consumer Device and 3DS Requestor Initiated- Confirmation of account information and Cardholder authentication with no direct Cardholder present. For example, a subscription-based e-commerce merchant confirming that an account is still valid or Cardholder authentication when the 3DS Requester and the ACS utilizes Decoupled Authentication.

Electronic Funds Transfer (EFT) and Curbing Procurement Fraud

Advances in internet technology have revolutionized modern society in multi-dimensional ways. It has increased the embrace and use of mobile devices for multiple and diverse internet-based activities. This trend has also changed the way businesses are conducted around the world and across international boundaries, (Aliyu et al,2020). Electronic Funds Transfer (EFT) is a widely used payment system facilitating one-to one funds transfer. Under this scheme, individuals, firms and corporates can electronically transfer funds from any bank branch to any individual, firm or corporate

having an account with any other bank branch in the country participating in the Scheme, (Franciska & Sahayaselvi, 2017). EFT can be used for a wide range of things. Buying things online triggers an EFT payment. In the modern world, EFT is the most common way for money to exchange hands, because we're increasingly moving away from physical cash, (Obala,2018). The U.S. Electronic Fund Transfer Act of 1978 defines EFTs as a transfer initiated by telephone, computer, electronic terminal, or magnetic tape for the purpose of ordering, instructing or authorizing a financial institution to credit or debit an account. This process goes by several different names today. It may be called an e-check in the United States, a bank transfer in the UK, National electronic Funds Transfer(NEFT) in India or a giro transfer in Europe. Direct deposits, ATM transfers, direct debits by a cashier, and instant payments all qualify as an EFT, KPMG (2012).

More than one half of the cases relating to foreign bribery involve public procurement. Surveys of business owner's introduction consistently identify corruption in public procurement as among the major constraints to doing business, (UNODC 2020). Moreover, international and global distortions are sometimes caused by corruption in public procurement transactions. The costs and societal damage caused by corruption in public procurement extend far beyond the price tag of capital projects. Corruption leads governments to overinvest in capital projects, given the ease of capturing rents from public procurement, and reduces their return on investment, (Worldbank,2020). Since an electronic funds transfer is nonreversible and has records of transactions, it is essential to for procuring entities to embrace it. Instead of cheques which take longer to mature, EFT may take less days to clear. The conventional electronic funds transfer typically connects directly to a payer's bank account. Moving money between checking or savings may be a trusted process, but there are some weaknesses in

this system that can give some consumers pause when working with a merchant (GPFI, 2017).

The general digitalization of public services has been advanced in many countries around the world. It is primarily driven by the intent to increase efficiency in public service delivery. E-government tools can decrease waiting times, make some public services available around-the-clock and, in many cases, enable remote services and, crucially, reduce costs (Ndou, 2004). Digitization of government systems are also put forward as an anti-corruption instrument as they reduce direct contact points between citizens and public officials. Citizens can file motions, submit petitions or apply for public services online, using personal computers or e-government terminals in government buildings. This reduces opportunities for corruption and favoritism by public officials (Niklas & Victoria 2018). The theft of public revenues is a daily ethical failing associated with corruption in African countries. Yet many government sectors and agencies in Africa have failed to use ICTs to create the required culture of transparency (Aliyu et al, 2020).

Electronic payment via the internet can check tax evasion and reduce double or multiple taxations. Electronic payments have been assessed as a more effective method of blocking leakages or channels of leakages for revenue generation, salary payment, contract payment and an end-to-end transaction involving the government (Jatau & Dung, 2014). The World Bank (2014) identified some significant advantages the wide spread adoption of electronic payment as including the ability to overcome costs and physical barriers to payments including governmental revenue collection; and opportunity to rapidly scale up financial services using various technologies such as smartphones, retail points of sale, etc. Electronic payment can help reduce corruption in Africa and most developing countries as it promotes transparency (Aliyu et al, 2020).

METHODOLOGY

Cross sectional survey was conducted among the selected respondents. The design serves to facilitate

collection of dependable data that would give a true picture of the current procurement frauds. Structured questionnaires were administered in addition to personalized interviews. Descriptive statistics like frequency percentage, mean and standard deviation was used besides regression analysis. Further to this, a positivist paradigm approach was adopted, and content analysis was used to collate secondary data on the influence of digital payments in curbing fraud in state corporations.

FINDINGS

It is often assumed that digitization of government services would automatically result in a reduction of corruption. This theory is rarely tested, and if tested, the testing usually results into mixed and even contested results. Based on the literature reviewed, we found out that ICT's has a significant effect on corruption. Studies by (Asian development Bank, 2017), posits that because corruption is a function of the opportunity to abuse public office and the risk of detection, ICT is an invaluable tool with which to swell both the demand and supply sides of good governance. A study by Vasudevan (2006) concluded that key policy choices, and not merely the technology employed, helps to reduce corruption. The World bank in their study "Enhancing Government Effectiveness and Transparency. The Fight Against Corruption September 2020"., concludes that, while digitization is important, other factors like institutional incentives and capacities and strong leadership are key for enhanced efficiency, improved service delivery and reduced opportunities for corruption.

The UNODC argues that the traction of digital technologies in reducing fraud and corruption would entirely depend on the institutional context. Any system will only be as good as the practices that complement it and the human face behind it. According to (Aliyu et al, 2020), advances in internet technology has increased the embrace and use of mobile devices for multiple and diverse internet-based activities changing the way businesses are

conducted around the world and across international boundaries. Studies by (Niklas & Victoria 2018), reveal that digitization of government systems have helped reduce direct contact points between citizens and public officials thereby reducing the opportunities for corruption and favoritism by public officials. (Jatau & Dung, 2014) concludes by asserting that, electronic payment has been assessed as a more effective method of blocking leakages or channels of leakages for revenue generation, salary payment, contract payment and an end-to-end transaction involving the governments. Studies by (Aliyu et al, 2020), also found that, electronic payment can help reduce corruption in Africa and most developing countries as it promotes transparency.

CONCLUSION AND RECOMMENDATION

Public procurement plays a strategic role to governments in terms of cost saving, quality management, effective contract management and it's also used as a competitive tool for many organizations. The vision 2030 recognizes that a well-functioning public procurement system is critical to achieving the national development goals. Making up between 15% and 20% of GDP, public procurement contributes to greater competitiveness by stimulating trade and fostering foreign direct investment. The failure of public procurement system in Africa has been attributed to several factors including weak commitment to fighting corruption, ineffective implementation of the reformed procurement system, lack of transparency in the award of government contract, lack of accountability on the part of government, both national and local government in the use of public funds among other factors. There is tremendous progress in the number of county assemblies, MDAs and County governments using the Procure to Pay system on the IFMIS for their procurement requirements, however, the literature reviewed indicate that state corporations are not using the e-procurement system. The literature reviewed indicated only 2 out of 187 SCs use the IFMIS platform. Our analysis has revealed that the

government is yet to procure an end-to-end E-procurement system thereby exposing the procurement process to lot of manipulations.

The study identified a number of reform actions needed for a better public procurement system including: (i) Strengthening Compliance for enforcement; (ii) The need for an end-to-end E-procurement system for all Procurement Processes; and (iii) Need for technological Skills among procurement professionals in public sector and need for transparency in the procurement process.

REFERENCES

Amba Kak, ed. (2020). Regulating Biometrics: Global Approaches and Urgent Questions: Proceedings from Miriam Cunningham and Paul Cunningham (Eds) 1st -Africa Institute and IIMC, 2020 ISBN: 978-1-905824-65-6 . The authors www.IST-Africa.org/Conference2020.

Congressional Research Services (2020). Biometric Entry-Exit System: Legislative History and Status. Retreeved from; https://crsreports.congress.gov/

Ethics and Anti-Corruption Commission (EACC), (2018). National Ethics and Corruption Survey, 2018. https://eacc.go.ke/default/wp-content/uploads/2019/11/EACC-Ethic-Corruption-Survey-2018.pdf

Gianluca Iazzolino (2020). Infrastructure of compassionate repression: making sense of biometrics in Kakuma refugee camp, Information Technology for Development, DOI: 10.1080/02681102.2020.1816881 https://doi.org/10.1080/02681102.2020.1816881

Huszti-Orban.,K., &Aolain., F.,(2020). Use of Biometric Data to Identify Terrorists: Best Practice or Risky Business. Human Rights Center University of Minnesota

Kangogo, S. (2020). Influence of fraud prevention and detection techniques on fraud and moderating effect of firm revenue in Kenyan State Corporations [Unpublished Thesis, Strathmore University].http://hdl.handle.net/11071/12075

Kiprono, G. J. & Ng'ang'a, P. (2018). Fraud management practices and financial performance of Kenya Ports Authority. *International Academic Journal of Economics and Finance*, 3(2), 241-264

Kenya Ethical and Legal Issues Network (Kelin), (2020). Matrix of some of the Reported Corruption in Kenya's Health Sector Since 2010. Retreeved from: https://www.kelinkenya.org/wp-content/uploads/2020/09/MATRIX-OF-REPORTED-CORRUPTION-IN-KENYA_14092020.pdf

Masengeli G., Wachira., A., & Mwenda., L., (2019). Effect of Asset Misappropriation on Fraud Risk Among State Corporations in Mombasa County in Kenya. *International Journal of Economics, Commerce and Management*, United Kingdom

Mbau., R., Kabia.,E., Honda.,A.,, Hanson.,K., & Barasa.,E. (2020). Examining purchasing reforms towards universal health coverage by the National Hospital Insurance Fund in Kenya. *International Journal for Equity in Health* (2020) 19:19 https://doi.org/10.1186/s12939-019-1116-

Muluve., E., Awori., Q., Owiti, P., Osuka, D., Serembe.,J.M,, Paul M.P., & , Austrian, K. (2020). Using Mobile Biometrics and Management Information Systems to Enhance Quality and Accountability of Cash transfer in a Girls' Empowerment Program in Rural and Urban Poor Settings. The authors www.IST-Africa.org/Conference2020

Nyakundi., N., F. (2020). Huduma Namba: Kenya's Transformation into an Informational State. (Unpublished MA thesis, University of Washington 2020).

Omari.,L.,C.,(2018). Economic Wrongs and Social Rights: Analyzing the Impact of Systemic Corruption on Realization of Economic and Social Rights in Kenya and the Potential Redress Offered by the Optional Protocol to the International Covenant on Economic, Social Rights and Cultural Rights." *The Transnational Human Rights Review*, 5: 63-. https://digitalcommons.osgoode.yorku.ca/thr/vol5/iss1/3

Ouma.,P.,N., , Masai., A.,N & , Nyadera.,N.,I. (2020). Health coverage and what Kenya can learn from the COVID-19 Pandemic . www.*The Journal of Global Health (JoGH) © 2020*. The Author(s) JoGH © 2020 ISGH www.jogh.org • doi: 10.7189/jogh.10.020362 December 2020 • Vol. 10 No. 2 • 020362

Panya, K., O., (2020, October, 28). Ethical Procurement holds Key to Kenya's fast Growth, Honor. Business Daily. Retrieved from: https//www.Businesdailyafrica.com/bd/opinion- Analysis/columnists/ethical-procurement-holds-key-to-Kenya's-fast-growth-honour

Siddique.,S. , Yasmin.,M. , Taher.,T., B., , & Alam., M. (2021). The Reliability and Acceptance of Biometric System in Bangladesh: Users Perspective. *International Journal of Computer Trends and Technology* Volume 69 Issue 6, 15-21, June, 2021. ISSN: 2231 – 2803 /doi:10.14445/22312803/IJCTT-V69I6P103 © 2021 Seventh Sense Research Group®