

**ASSESSMENT OF LEGAL FRAMEWORK FOR ELECTRONIC  
PROCUREMENT IN THE PUBLIC SECTOR IN TANZANIA**

**JUMA ABDALLAH NJWAYO**

**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF DOCTOR OF PHILOSOPHY IN LAW (PhD)  
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**CERTIFICATION**

The undersigned certify that they have read and hereby recommends for acceptance by the Open University of Tanzania a thesis titled; “Assessment of Legal Framework for Electronic Procurement in the Public Sector in Tanzania” in fulfilment of the requirements for the award of the degree of Doctor of Philosophy (Ph.D.) of the Open University of Tanzania.

.....

Dr. Abdallah M. Ally (Ph.D.)  
(Supervisor)

.....

Date

.....

Dr. Hashil T. Abdallah (Ph.D.)  
(Supervisor)

.....

Date

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Date

**DEDICATION**

This work is dedicated to my father Alhaj Abdallah Likwati Njwayo and mother Salima Chihindi Luheko, for their love, prayers and sacrifice they have made for my academic advancement to this level. I wish them a river of Jannah (Heaven) for every drop of sweat they shed in bringing me up.

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However, I remain liable should there be any errors in this work.

## ABSTRACT

This research aimed at assessing the legal framework of electronic procurement in the public sector in Tanzania. The framework's legal flaws were examined, and ideas for improving Tanzania's electronic procurement efficiency were suggested. The study adopted a qualitative research methodology and used comparative and doctrinal legal research techniques. It was found that Tanzania lacks essential regulatory bodies for software, provisions that acknowledge the role of IT specialists in the procurement process, risk management strategies for both financial, economic risks and security threats in the e-procurement cycle. Furthermore, Tanzania's constitution does not contain any articles recognising procurement. These legal problems seriously impede the efficiency of e-procurement procedures, which resulted by a lack of comprehensive e-procurement regulation. Therefore, if Tanzania is to benefit, the study recommends revising the current Public Procurement Act 2011(Cap 410 R.E 2022) and its ancillary legislation and replace with the comprehensive e-procurement regulation; to enclosure procurement in constitution, to establish software licensing authority, to create risk management control mechanism and to establish ratification process of codified international instruments like UNCITRAL Model Law on Public Procurement 2011,the World Trade Organization on E-Procurement 2012, the UNCITRAL Model Law on Public Procurement 2011; the World Bank`s Procurement Framework and UN Convention on the use of Electronic communication 2005 in order to improve e-procurement in Tanzania and also, to join with the Information Systems Audit and Control Association in order to control the financial and security risks in e-procurement.

**Keywords:** *Legal, Framework, Electronic Procurement, The Public Sector.*

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**LIST OF ACRONYMS AND ABBREVIATIONS**

ADB	Asian Development Bank
ADR	Alternative Dispute Resolution
AICC	Arusha International Conference Centre
APA	Alternative Procurement Arrangements
APEC	Asia-Pacific Economic Cooperation
Art	Article
ATM	Automated Teller Machine
BEJ	Business Educational Journal
BOT	Bank of Tanzania
CAP	Chapter
CBT	Central Tender Board
CEO	Chief Executive Officer
CIPS	Chartered Institute of Procurement and Supply
CPAR	Country Procurement Assessment Report
DTTP	Distributed Trusted Third Party
e-Advertisement	Electronic Advertisement
e-Auction	Electronic Auction
EC	European Commission
e-Catalogue	Electronic Catalogue
e-Communication	Electronic Communication
e-Consumer	Electronic Consumer
e-Contract	Electronic Contract
EDI	Electronic Data Interchange

e-GA	Electronic Government Agency
e-Government	Electronic Government
e-Informing	Electronic Informing
E-mail	Electronic Mail
e-MRO	Electronic Maintenance, Repair and Overhaul
EPOCA	Electronic and Postal Communication Act
e-PPs	Electronic Public Procurement System
e-Procurement	Electronic Procurement
e-Payment	Electronic Payment
e-Reverse Tendering	Electronic Reverse Tendering
ERNet	Educational and Research Network
ERP	Web-based Enterprise Resource Planning
e-Sgnature	Electronic Signature
e-Sourcing	Electronic Sourcing
e-Submission	Electronic Submission
et al	et alia (and others)
e-Tendering	Electronic Tendering
EU	European Union
EWURA	Energy and Water Utilities Regulatory Authority
G.N	Government Notice
GDP	Gross Domestic Product
GeM	General Electronic Management
GovNet	Government Communication Network
GPSA	Government Procurement and Supplies Agency

Ibid	Ibidem (in the same source)
ICT	Information and Communication Technology
ID	Identity or Identification
IFMIS	Integrated Financial Management Information System
IJIR	Imperial Journal of Interdisciplinary Research
IMF	International Monetary Fund
Infosec	Information Security
IoT	Internet on Things
ISACA	Information Systems Audit and Control Association
ISBN	International Standard Book Number
ISO	International Organization for Standardization
IT Specialist	Information and Technology Specialist
ITU	International Telecommunication Union
JALO	Judicature and Application of Laws Ordinance
KCCA	Kampala Capital City Authority
LL.M	Legum Magister (Master of Laws Degree)
MoFP	Ministry of Finance and Planning
MP	Member of Parliament
M-Pesa	Mobile Phone money transfer service through Vodacom Tanzania PLC
Msc. PSCM	Masters of Science in Procurement and Supply Chain Management
MSD	Medical Stores Department
MWAUWASA	Mwanza Urban Water Supply and Sanitation

NeGP	National Electronic Plan
NITA	National Information Technology Authority
NIPA	National Information Technology Industry Promotion Agency
NSSF	National Social Security Fund
ODR	Online Dispute Resolution
OECD	Organization for Electronic Cooperation and Development
OUT	Open University of Tanzania
PCCB	Prevention and Combating of Corruption Bureau
Ph.D.	Doctor of Philosophy Degree
PIN	Personal Identification Number
PMIS	Procurement Management Information Systems
PO-RALG	President`s Office, Regional Administration and Local Government
PPAA	Public Procurement Appeals Authority
PPDA	Public Procurement and Disposal of Assets Authority
PPDEs	Public Procurement and Disposing Entities
PPRA	Tanzania Procurement Regulatory Authority
PWC	Price water house Coopers
R.E	Revised Edition
RCIP	Regional Communication Infrastructure Project
S	Section
SARA	Security Assurance Requirement Analysis
ss	Sections
STEP	Systematic Tracking of Exchanges in Procurement

TANeps	Tanzania e-Procurement Systems
TANESCO	Tanzania Electric Supply Company
TANROADS	Tanzania National Roads Agency
TCRA	Tanzania Communication Regulatory Authority
TISS	Tanzania Inter-Bank Settlement System
TPA	Tanzania Ports Authority
TTP	Trusted Third Party
UDSM	University of Dar es Salaam
UETA	Uniform Electronic Transaction Act
UIICT	Uganda Institute of Information and Communication Technology
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNCUECIC	United Nations on Convention on the Use of Electronic Communications in International Contracts
UNICTRAL	United Nations Commission on International Trade Law
US	United States
WB	World Bank
WTO	World Trade Organization
WWW	World Wide Web

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## CHAPTER ONE

### INTRODUCTION AND BACKGROUND TO THE PROBLEM

#### 1.1 Background of the Problem

Public procurement is one of important function that consumes almost 70% of Tanzania's national budget.<sup>1</sup>Otuh had a similar point of view when he indicated that the government of Tanzania spends between 41% and 70% of its overall budget on procurement. This is a result of inefficient spending by ministry, department, and agency on the procurement of projects, products, and services.<sup>2</sup> Assad also narrates that this field is vulnerable to fraud and dishonest manipulation. Any corruption in the procurement process results in financial losses harms people's and companies' reputations as trustworthy business partners, and lowers compliance rates in public enterprises.As a result, if the government is not restrained, its ability to accomplish its objectives will be compromised, risking the public's access to services.<sup>3</sup>

The available history shows that Tanzania has undergone numerous regulatory frameworks to oversee its public procurement functions since independence. For instance, the first law to be enacted was the Exchequer and Audit Ordinance Cap 439 of 1961. The ordinance provided for the control of and management of public funds. During this time the procurement process for acquiring goods and works was articulated in the Financial Orders Part 111 (Stores Regulations) Fifth Edition, 1965(now repealed). These regulations applied pursuant to the Exchequer and Audit

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<sup>1</sup> Mnyasenga, T.R and Athanace, E.P.N., Revisiting Public Procurement Law in Mainland Tanzania, BiLD Journal 2021 Vol.4 Issue 2 at Abstract

<sup>2</sup> Otuh, L.S., A Report of the Controller and Auditor General of the United Republic of Tanzania, Performance Audit on Management of Procurement of ICT Equipment in Public Sector, National Audit Office, 2013 P. 1

<sup>3</sup> Assad, M.J., Annual General Report of the Controller and Auditor General on the Audit of Financial Statements of the Central Government for Financial Year Ended 30<sup>th</sup> June 2018, National Audit Office 2019 P.173.

Ordinance Cap 439 of 1961. However, this Ordinance was repealed by the Public Procurement Act 2001 (Act No. 3 of 2001) passed by the Tanzanian Parliament in 2001. Prior to then, Tanzanian procurement was governed by a number of laws, including the Medical Stores Tender Board Act No.13 of 1993, which governed the purchase of medical supplies by the Central Medical Stores Department.

Following the Local Government Authorities which were established by the Decentralisation of Government Administration (Interim Provisions) Act 1972 (Act No. 77 of 1972), the Local Government (District Authorities) Act 1982 (Act No. 7 of 1982), the Local Government (Urban Authorities) Act 1982 (Act No. 8 of 1982) and the Local Government (Finances) Act 1982 (Act No. 9 of 1982) were all created. The Executive Agencies Act 1997 (Act No. 30 of 1997) which regulated public procurement in the local government authorities, the Executive Agencies (Finance, Procurement and Stores) Regulation 1999 (GN 77 of 1999) and the Exchequer and Audit Ordinance Cap 439 of 1961 which regulated the purchasing procedure for goods and services and public procurement in the executive agencies which was outlined in the Financial Orders Part 111 (Stores Regulations) Fifth Edition, 1965 were abolished.

Tanzania then issued extensive and comprehensive laws in 1991 for the Ministry of Works' procurement of goods and services, whereas the Ministry of Education and Culture had a separate procedure. These responsibilities fell into the integrated roads division of the Ministry of Works. The Central Medical Stores Department also had its own legal structure based on the Medical Stores Tender Board Act of 1983 (Act No. 13 of 1993). The Exchequer and Audit Ordinance 1961 and Financial Orders



Part 111 (Stores Regulations) 5th Edition, 1965 were the two systems used by the Ministry of Defence and National Service that are Tanzania People's Defence Force and the National Services used the National Security Act 1970 (Act No. 3 of 1970).

In 1992, Tanzania appointed a consultant to assess the state of public procurement and the supply management chain in Tanzania. From there, the Tanzanian government began to take steps that modernise the public procurement system. This is because of the consultant's suggestions which was to enact a new procurement legislation that would correspond to the finest public procurement principles, laws and structures including to eliminate the fragmentation and inadequacy of the current law's objectives such as non-integrated legal framework of public procurement thought out as ineffective because of being fragmented, absence of oversight and regulatory body to set standards and guidelines to monitor and enforce compliance and non-regulation of procurement of works and selection of consultants.<sup>4</sup>

The Public Procurement Act 2001 (Act No. 3 of 2001), the new public procurement regulation, was adopted by the parliament in 2001. Two types of public procurement regulations provided support for this. These were the Procurement of Goods and Works Regulations 2001 (GN. 138 of 2001) and the Public Procurement (Selection and Employment of Consultants) Regulations of 2001 (repealed). These laws established local government tender boards in accordance with the Local Government (Finances) Act of 1982 which all owed local government authorities to

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<sup>4</sup>Nkinga, N.S.D., 'Public Procurement Reform-The Tanzania Experience, Central Tender Board, Ministry of Finance', A paper presented at the Joint WTO- World Bank Regional Workshop on Procurement Reforms and Public Procurement for the English-Speaking African Countries held at the Royal Palm Hotel, Dar es Salaam, Tanzania from 14<sup>th</sup>-17<sup>th</sup> January 2003 on pp. 1-19.

carry out their procurement duties as outlined in the Local Authority Financial Memorandum 1997.

The Public Procurement Act 2004 (Act No. 2 of 2004) which repealed the Public Procurement Act 2001 went into effect to enhance the efficiency and effectiveness of the public procurement system.<sup>5</sup>The Public Procurement Act 2011 (Cap 410 RE 2022) was rationalised from the Public Procurement Act 2004 and required the Public Procurement Regulatory Authority (PPRA) to among other things oversee the nation's e-procurement system in order to enhance the procurement procedures.<sup>6</sup>

Following the emergence of information and communication technology, in particular, the internet and other web-based technologies, the traditional paper-based procurement method was replaced the electronic procurement system. This change enhanced the procurement procedures generally and specifically in terms of their capacity to lower transaction costs, control inventory, minimise delays, combat corruption, and obtain value for the money.<sup>7</sup>

Therefore, in efforts to ensure efficiency in public procurement, the Government of Tanzania created a new framework to regulate its procurement system. This framework provided for in the Public Procurement Act 2011 and its Regulation of 2013, GN.446<sup>8</sup> through the public procurement (Amendment) Act 2016 (Act No.5 of 2016) which amended s.63 of the Public Procurement Act 2011 to accommodate e-

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<sup>5</sup> Ibid.

<sup>6</sup> s. 8 of the Act

<sup>7</sup> Mchopa, A., 'The Adoption of E-procurement in Tanzania Public Procurement: Progress, Challenges and the Way Forward' at P. 1 (accessed from <https://www.academia.edu> on 14.11.2017).

<sup>8</sup> s.341 of the Regulation

procurement in terms of procuring entities and stated that it shall ensure the procurement or disposal by tender is implanted and reported through electronic procedures or manually where electronic facility is not available.<sup>9</sup> Additionally, Tanzania enacted the Electronic Transactions Act 2015 (Act No. 13 of 2015), which provided for all data messages in electronic format have legal effect and therefore become lawful and enforceable.<sup>10</sup>

Despite the initiative of Tanzania to adopt these legislative frameworks for e-procurement, there are still legal gaps that must be filled in order for e-procurement to be effective and efficient. These holes include, among other things, lack of rights of some important participants who hold crucial transaction positions in electronic procurement systems and other security-related flaws. For example, regardless of Tanzania's commitment to e-procurement development, there is neither a comprehensive procurement policy nor a constitutional provision regarding its existence. This indicates that Tanzania's efforts to recognise e-procurement have not addressed fundamental legal issues. In this sense, problems including inefficiency, lack of transparency, and poor governance continue to plague the procurement position. These are significant legal challenges that must be resolved to ensure efficient and effective e-procurement.

## **1.2 Statement of the Problem**

The public procurement (Amendment) Act 2016 (Act No.5 of 2016) and the Regulation (GN) No. 446 require the procuring entities to ensure the public

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<sup>9</sup> s.63 of the Act

<sup>10</sup> s. 4 of the Act

procurement or disposal by tender in Tanzania is executed through electronic procedures in order to ensure efficiency and transparency in public procurement.<sup>11</sup> Also, the Electronic Transactions Act 2015 (Act No. 13 of 2015) recognizes that all data message that are in electronic format are legal, valid and enforceable<sup>12</sup>.

The prevailing procedure creates gaps in the legal frameworks as there is lack of adequate legal frameworks that expose an e-procurement to be not comprehensively efficient and effective. These may be seen in the question why there are disputes in the transactions performed by Tanzania National e-Procurement System (TANeps) lodged in the Public Procurement Appeals Authority (PPAA). One of examples is an appeal of M/s SGS Tanzania Superintendence Co. Limited v Tanzania Communications Regulatory Authority (TCRA)<sup>13</sup> decided by PPAA which upheld that the choosing Ms Bureau Veritas Tanzania Limited to carry out the work was marred by procedural irregularities and prematurely.<sup>14</sup> The material facts were that the respondent issued the notice of intention to award on 8<sup>th</sup> January 2021 through TANeps.

Upon being dissatisfied with such a notice, filed an application for administrative review on 18<sup>th</sup> January 2021 when the appellant received the notice of intention to award, the seven days working days for a filling a complaint was to end on 20<sup>th</sup> January 2021, The Appellant lodged its application for administrative review on 18th January 2021 within the prescribed time under law to pray among other things,

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<sup>11</sup> S. 20 of the Act and s.343 of regulation

<sup>12</sup> S.4 of the Act

<sup>13</sup> Appeal Case No. 21 of 2020-21 in the Public Procurement Appeals Authority at Dar Es Salaam.

<sup>14</sup> Bernard James, 'Why Tanzania was ordered to refloat the Sh29 billion tender afresh', The Citizen, Wednesday March 17, 2021 (accessed from <https://www.thecitizen.co.tz> on 22.04.2021).

if a declaration was filled in time, and whether a declaration of award of award was done prematurely.

Again, the existing legal framework creates gaps because there is lack of accountability in the existing procurement framework to some key players who possess essential transactions in electronic procurement caused by the existing legal framework not to address the requirement. For example, IT staffs are not mentioned in the current procurement law. Equally, there is lack of best standard framework for e-procurement and lack of security issue son e-procurement. These are the key impediments to the smooth process of the framework.

Categorically, impediment is something that makes progress or movement difficult or impossible.<sup>15</sup> In this case impediment may include absence of clear legal and regulatory, legal flaws, lack of standard framework or inefficient laws, trade barrier and so forth. Absence of clear legal and regulatory framework that responds clearly to the above-mentioned problems exposes the risk of legal framework of e-procurement of the public sector in Tanzania. It is, therefore, vital to investigate the weaknesses presented in e-procurement practice and suggest what can be done to ensure there is a smooth e-procurement role.

### **1.3 Objectives of the Study**

This research aimed at achieving two types of objectives, namely the general and the specific objectives as stated below.

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<sup>15</sup>Cambridge Advanced Dictionary &Thesaurus, Cambridge University Press and Assessment 2023

### **1.3.1 General Objective of the Study**

The general objective of this study was to assess the flaws of legal framework of electronic procurement in the public sector in Tanzania.

### **1.3.2 Specific Objectives of the Study**

The study was guided by the following specific objectives:

- i. To identify the legal gaps in the existing law governing e-procurement in Tanzania
- ii. To trace the impact of international and regional legal instruments in e-procurement in Tanzania
- iii. To evaluate the legal development strategies of government of Tanzania on e-procurement
- iv. To assess the legal and regulatory development of e-procurement in Kenya and Uganda and their contribution in legal transformation on e-procurement in Tanzania.
- v. To examine the legal risks surrounding e-procurement in Tanzania

### **1.4 Research Questions**

The research was guided by the following questions:

- i. What are the legal gaps existing in present laws governing e-procurement in Tanzania?
- ii. How have the international and regional legal instruments influenced e-procurement in Tanzania?
- iii. What are the developing strategies done by government of Tanzania with regard of e-procurement?

- iv. What are the legal and regulatory developments of e-procurement in Kenya and Uganda countries?
- v. Does the existing legal regime address the risks and challenges linked to e-procurement in Tanzania?

### **1.5 Significance of the Study**

This study traces the legal gaps that exist in legal frameworks for e-procurement in Tanzania. The study points out the ways to improve the well-being of e-procurement in Tanzania. Also, it suggests how to deal with improved socio-economic development in procurement in terms of education on e-procurement and, therefore, to enlighten the law and business stakeholders on the current legal issues facing e-procurement in Tanzania.

The study identifies different legal gaps and uncertainties of the laws available in e-procurement and then provides the possible solutions. In course of doing that, this research becomes significant as it aims at guiding the Tanzanian lawyers and law makers in general through ways of addressing issues of e-procurement, learning the best policies and procedures from other jurisdiction and, if possible, respond accordingly by enacting better laws on e-procurement.

Additionally, the study has legal and social significance in different ways. Firstly; it detects the distinct legal gaps that plague in the e-procurement function, the problems and measures to overcome them. The study will fill the academic gap available in area of e-procurement literature in academia and public institutions and may contribute in the knowledge about the causes of the legal gaps in e-

procurement. Thus, it will enable procurement experts and the public in general to identify the legal flaws and the best ways of using e-procurement in public institutions. Secondly, to address the legal gaps and suggested solutions that would help to form a new way of implementing e-procurement.

### **1.6 Literature Review**

There are scholars who have studied on the assessment of legal framework for e-procurement in Tanzania, though there is no literature that has specifically covered the area of inquiry of this study. Some of the literatures cited have been made from other jurisdictions. As their views and verdicts are related to this study, they have been shared so as to examine the likely legal gaps that make the scope of the present work.

Antwi et al., writing on modelling an effective e-procurement system for Ghana's healthcare sector argue that the usage of e-procurement has turned into a strategic tool for attaining the goals of various institutions, including the health sector. They also assert that the importance of data security in e-procurement systems has increased due to the sensitive nature of procurement issues and the private nature of orders and payments. In order for suppliers to feel secure in filling orders, the system must provide means for identifying and authenticating people who submit their orders.<sup>16</sup> Despite of their literature being insightful, the authors do digested clearly the issues related to the guarantee of security on e-procurement which are one of the realms of the study.

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<sup>16</sup>Antwi, A. H et al., "Modelling an Effective E-Procurement System for Ghana's Healthcare Sector: A Critical Review and Proposal". International Journal of Scientific Research in Science, Engineering and Technology.2016, Vol. 2, No. 6, pp.641-650 (accessed from [https:// www.academia.edu](https://www.academia.edu) on 18.12.2020).



Blacharski discussing the advantages and disadvantages of e-procurement explains on how e-procurement may make purchasing easier, how it can help to save money, and enhance the entire supply chain.<sup>17</sup> Additionally, despite the benefits of e-procurement, he warns that, if used improperly, it may lead to restrictions and limited options for buyers. However, Blacharski views does not, rely on legal restrictions and related legal and procedural options that could be used to enhance e-procurement.

Jackson studying the implementation of e-procurement in Government Authorities in Tanzania provides several barrier factors that hinder to the use of e-procurement in Tanzania. She notes that in order to fully implement e-procurement in Tanzania, several economic sectors must be included in recognising the benefits and drawbacks of e-procurement.<sup>18</sup> The author also reveals that, there must be a long-term strategic plan which if fully implemented will result in cost savings, time savings in ordering goods and services, and a lessening in paperwork. This study supported Jackson on the facts about smooth operation of e-procurement which is associated with many factors. However, Jackson identifies a number of obstacles and an impediment that affects e-procurement without considering the legal framework which is this research wants to deal with.

Nawiand his colleagues discussing the benefits and challenges of e-procurement implementation in Malaysian Companies point out that e-procurement system are

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<sup>17</sup>Blacharski, D., 'Advantages & disadvantages of E-Procurement', 2017 at p.1 (accessed from <https://bizfluent.com> on 19.12.2018).

<sup>18</sup>Jackson, N., 'Implementation of E-Procurement in Government Authorities in Tanzania: A Case of Mwanza Urban Water Supply and Sanitation (MWAUWASA)', A Dissertation Submitted in Partial Fulfilment of the Requirements for the Award of Masters of Science in Procurement and Supply Chain Management (MSc. PSCM) Mzumbe University, Tanzania, 2019.

relatively new to the business world and that a lack of benchmarks has made it possible to develop reference models, particularly in new firms that are just starting to learn about and use the systems. Factors like poor technology, poor infrastructure and insufficient legislation are some of the challenges in the implementation of e-procurement.<sup>19</sup> Again, Kushoka discussing the challenges of e-procurement adoption in a private bank in Tanzania," explains that the current legislative framework is not more accommodating into the current e-procurement system.

Among these legal requirements are writing, signature, document retention, procurement procedures, advertising, and publication in government gazettes<sup>20</sup>. In contrast to this study, which explicitly looks at the legal gaps faced in e-procurement procedures in Tanzania, the authors mentioned above have dealt with mixed challenges of e-procurement ranging from technology, infrastructure, and legislation. These concepts are very valuable information in the intended study but the authors have dealt with broader issues which diverge from the specific issues related to the assessment of the legal fragment of e-procurement.

Moreover, Kiprono discussing the challenges of e-procurement adoption in Kenyan public sector makes the case that Kenya's underdeveloped legal system makes it difficult to implement e-procurement in the public sector.<sup>21</sup>The study's original

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<sup>19</sup>Nawi, M.N.M et al. *Benefits and Challenges of E-procurement Implement: A Case Study of Malaysian Company*, International Journal of Economics and Financial Issues. 2016, Vol. 6, No. 75, pp 329-332(accessed from [https://www.econjournals.com]on 14.11.2017).

<sup>20</sup>Kushoka, I., 'Challenges of E-procurement Adoption in a Private Bank in Tanzania'. *Scholarly Research Paper (Undergraduate)*, Arusha Institute of Accountancy. GRIN Publishing, UK, 2005(accessed from [http://www.grin.com] on 15.11.2017).

<sup>21</sup>Kiprono, R., 'Challenges of E-procurement Adoption in Kenya Public Sector: A Survey of Parastatals in the Ministry of Finance', A Research Project submitted to the School of Humanities Resource Development in

contribution to the growth of e-procurement in the public sector in Kenya is the creation of a new legislative and regulatory framework for public procurement. The author points out that Kenya's insufficient legal framework makes it difficult to execute e-procurement in the public sector. However, the author has failed to make the recommendations on how to contain the situation.

Makoba, et al., explaining e-procurement risks and mitigation in Tanzania construction companies maintains that, there are a number of problems associated with using e-procurement in Tanzania's construction sector, including assaults from computer viruses and worms, unreliable internet, incompatibility with technology, a lack of confidence about confidentiality, and dishonest attacks in financial transactions.<sup>22</sup> Furthermore, Makoba and his colleagues educate the public on the necessity for Tanzanian construction businesses to employ various strategies for addressing legal difficulties related to e-procurement as well as the importance of keeping an eye out for international regulations in order to avoid liabilities. Makoba and his colleagues emphasises on strategies for e-procurement risks mitigation which is a vital component of the study. However, the current study differs from the work of the aforementioned researchers in the sense that Makoba and allies focused specifically on the construction companies while the author of the study assesses the legal concerns surrounding e-procurement in the public sector which include the central and local governments.

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Partial Fulfilment for Degree of Masters of Science in procurement and Logistics of Jomo Kenyatta University of Agriculture and Technology, Kenya, 2013 (accessed from [https://www.researchgate.net] on 14.11.2017).  
<sup>22</sup>Makoba, E et al., *E-Procurement Risks and Mitigation: The Case for Tanzania Construction Companies*, International Journal of Construction, Engineering and Management, 2017 Vol. 6 No. 4 pp.180-186 (accessed from <http://article.sapub.orgon> 12/11/2017).

Mambi writing on information and cyber law in Tanzania and East African countries establishes that despite the fact that a policy and legal frameworks are crucial for making information on government functions, departments, and institutions' activities and services are easily accessible to the general public, the Tanzania's public procurement arrangement does not cover online transactions or recognise cyberspace.<sup>23</sup> Mambi's theories are helpful because they provide a backdrop against which to study recent legal difficulties in public procurement, even though they are based on the procurement structure before the use of e-procurement. Numerous electronic regulatory frameworks have been developed since Tanzania declared its commitment to the use of online commerce, including the ICT Policy, the Electronic Transactions Act 2015 (Act No. 13 of 2015), and the Cybercrime Act 2015 (Act No. 14 of 2015) since 2003 to the present.

Mohamed outlining on adoption of e-procurement and value addition to Tanzanian public institutions reveal that the technological component of adopting any new technology across the nation or inside a particular organisation should not be disregarded. Mohamed provides further, the importance of factors like technological infrastructures, technological preparedness, and technological complexity in influencing the adoption of e-procurement in Tanzania<sup>24</sup>. However, the author has considered a variety of issues forming adoption of e-procurement without looking the Tanzania's legal framework for e-procurement in the public sector that this

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<sup>23</sup>Mambi, A.J., *ICT Law Book: A Source Book for Information and Cyber law in Tanzania and East African Countries*, Mkuki and Nyota, Tanzania, 2010, pp.1 - 109.

<sup>24</sup>Mohammed, S. A. 'Adoption of E-Procurement and Value Addition to Tanzania Public Institutions: A Case of Tanzania Public Institutions', A Dissertation Submitted on Partial Fulfilment of the Requirements for Award of the Degree of Masters of Science in Procurement and Supply Chain Management (MSc), Mzumbe University, Tanzania, 2013.

research wants to abide by.

Muchiri, et al., in development of a web based electronic procurement system clarify that one of the electronic systems that can be integrated into the e-procurement system is a portal.<sup>25</sup> He argues further that, the portal offers an integrated framework that plays a crucial part in managing complexity, operational performance, and procedures that provide value. Moreover, Muchiri and his colleagues point out further that, the portal technology enables suppliers and customers to log in and access both structured and unstructured data.

Suppliers, for instance, may be given access to the inventory levels of other partners and could then adjust their product in light of the information provided. These ideas are useful information as they highlight the function of a portal in e-procurement. However, Muchiri and his colleagues have not gone into details about the problems associated with legal framework on e-procurement and how to fix them. Therefore, this study has dwelled on this area in order to find a proper solution for smooth development of legal framework on e-procurement and then make recommendations on how to fix them.

Duru discussing the challenges facing e-procurement implementation in Tanzania organizations explains that despite the fact that members of staff make the best efforts possible to motivate each other to use technology, it is significantly hampered by a number of issues, including a lack of financial resources for capital investments,

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<sup>25</sup>Muchiri, J. R et al., *Development of a Web Based Electronic Procurement System*, International Journal of Advanced Research in Computer Science 2015 Vol. 6 No. 7 at P. 3 (accessed from [www.ijarcs.inf](http://www.ijarcs.inf) on 13.11.2019).

a paucity of trained labourers or specialists, and unreliable suppliers.<sup>26</sup> To emphasize this, Sijaona argues that institutional structures, ICTs, and policy frameworks are not prepared for effective and efficient e-procurement in his study entitled "E-procurement in Tanzania".<sup>27</sup> However, the fore mentioned authors' present mixed issues, such as social, financial, and legal challenges contrary to this work, which focused on Tanzania's legal framework for e-procurement in the public sector.

Shataet al writing on determinants of E-procurement adoption model for green procurement in developing countries recommend that the Tanzanian government must make sure that the actual potential and advantages of TANeps adoption are largely involved by stakeholders. They went further to state that, the top management of all procuring bodies and traditional suppliers need to change their perspectives.<sup>28</sup> The authors provide the way by which the management can modify the perspectives which could include informing the stakeholders actively and regularly about the performance of TANeps, the governing legislative framework, and their advantages to the supplier community and the government. However, the aforementioned writers have not investigated the reasons for the legal deficiencies in Tanzania's legal framework for electronic procurement.

Yennego, et al., discussing e-procurement in Liberia's Public Sector" clarify that whether in public or private institutions, e-procurement's reputation includes the

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<sup>26</sup>Duru, H.A., 'Challenges facing e-procurement implementation in Tanzania organizations: A case study of TANESCO Headquarters', A Dissertation Submitted on Partial Fulfilment of the Requirements for Award of the Degree of Masters of Science in Procurement and Supply Chain Management (MSc), Mzumbe University, Tanzania, 2008.

<sup>27</sup>Sijaona, K., E-procurement in Tanzania: A Paper Presented at the 3<sup>rd</sup> East African Procurement Forum-White Sand Hotel. Dar-Es salaam, Tanzania 29<sup>th</sup> September-1<sup>st</sup> October, 2010 at p. 2

<sup>28</sup>Shata, D et al, *Determinants of E-Procurement Adoption Model for Green Procurement in Developing Countries: Experience from Tanzania*, International Academic Journal of Procurement and Supply Chain Management 2020 Vol. 3 No. 2 at p.15 (accessed from <https://www.researchgate.net> 17.12.2020).

reduction of procurement cycle-time, cost, and corruption as well as the improvement of relationships between suppliers and purchasers, decision-making, and the exchange of information and policy compliance.<sup>29</sup> They further state that, it is crucial for the public institutions to examine the tremendous benefits that rationalisation in procurement processes will bring about. What Yennego and his colleagues emphasise is only the advantages of e-procurement in Liberia but they do not digest clearly the issues related to the legal implications.

Azanlerigu, et al., writing on the prospects and challenges of e-procurement in some selected institutions maintain that the lack of employee competency has hampered the seamless adoption of e-procurement in the Ghanaian public sector.<sup>30</sup> They further believe that staff competency is a bridge to the efficient operation of e-procurement. However, they have not assessed the issues associated with legal gaps and hence provide the strategies for mitigating the legal uncertainties of e-procurement.

This thesis is very appropriate to the present research as it provides current legal gaps of e-procurement framework that have not been addressed by previous authors and how to integrate the available efforts in order to close legal gaps that are not addressed by earlier investigations. The reviewed literature gives a room for a further study exploring substitute mitigation approaches and legal regulatory solutions which is the focus of the current study.

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<sup>29</sup>Yennego, Z.K. Jr, 'E-Procurement is Possible and Needed in Liberia's Public Sectors', P.4 (accessed from [www.academia.edu](http://www.academia.edu) on 17.12.2019).

<sup>30</sup>Azanlerigu, J. A. et al., *The Prospects and Challenges of E-procurement in Some Selected Institutions in Ghana*, *European Journal of Business and Management* 2015 Vol. 7 No.29 at p.74 (accessed from <http://www.iiste.org> on 18.12.2019).

## 1.7 Research Methodology

According to Jansen and Warren, the research methodology is a way to explain how researchers carry out their research on a particular problem. It is how are searcher systematically designs a study to ensure reliable results that address the objectives and research questions. Simply put, it is how the researcher decides what type of data to collect, from whom, how to collect the data and how to analyse it.<sup>31</sup> In other words, research methodology is the specific procedure or technique or rules used to identify, select, process and analyse information about certain topic to allow the reader to evaluate the validity and reliability of the study. Its application is to answer two main questions, one is how the data was collected or generated and two, is how it was analysed.<sup>32</sup>

According to Vibhute and Aynale, research methodology can be applied into legal research which entails as a systematic investigation of law or ascertain of law on a particular point or identified topic or area and inquiry or review into the law with view to making advancement of science of law.<sup>33</sup> There are many ways by which the legal research may be carried out. Examples of such methodologies include doctrinal research method, comparative research method and socio-legal research method. In this research, the doctrinal research method and comparative research method havebeen employed in order to do analysis of law in this study. Also, comparative legal research has been deployed in order to study statutory frameworks and legal

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<sup>31</sup>Jansen, D and Warren, K, What is Research Methodology (A Plain – Language Explanation & Definition (With Examples) (accessed from <https://gradcoach.com> on 24.04.2023)

<sup>32</sup> What is Research Methodology, Research Support: Research Methodology, University of the Witwatersrand, South Africa (accessed from <https://libguides.wits.ac.za> 24.04.2023)

<sup>33</sup>Vibhute, K and Aynale, F., Legal Research Methods: Teaching Material 2009 at p.22 (accessed from <https://chilot.files.wordpress.com> on 24.04.2023)



doctrines of foreign law relating to the regulation of e-procurement function.

### **1.7.1 Doctrinal Research Method**

Doctrinal research method is an analysis of legal rules or laws which are characteristically focused on primary and secondary sources of a study of law. This method or type of research is also known as black letter research. The primary sources include statutes and cases while secondary sources of law cover journal articles, books, reports, dissertations and theses and come up with logical reasoning behind it.<sup>34</sup>

According to Makulilo, doctrinal research method focuses on what the law is. That is *de legelata* as opposed to what the law ought to be that is *de legeferenda*. Under doctrinal methodology a researcher's core goal is to locate, collect the law either legislation or case law and apply it to a specific set of material facts in resolving a legal problem.<sup>35</sup>

Doctrinal research method is common practice in the task of research in law on particular issues and also doctrinal research method uses different legal methods like rules of legal interpretation and reasoning standards such as analogy, deductive reasoning, and inductive reasoning in order to analyse the materials collected against the background of the research questions. In short, the data are generated, analysed and systematically presented in accordance with the context of the study.

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<sup>34</sup> Legal Dissertation: Research and Writing Guide (accessed from <https://law.indiana.libguides.com> 18.12.2020).

<sup>35</sup> Makulilo, A. B., 'Protection of Personal Data in Sub-Saharan Africa', PhD Thesis, Bremen University 2012 at p.52

For clarity, an analogy is the process of data analysis mainly involving comparison between two objects.<sup>36</sup>In that case, data are organised into groups based on how similar they were, and after that, they were analysed on the basis of whether or not they share quantitative or qualitative relationships. According to Farrar, analogy treats case as like if they possess quantitative or qualitative relations in common which are regarded as relevant or material or important for the purpose in question and these outweigh the differences.<sup>37</sup>

The deductive reasoning is the method of reasoning from the general to the particular. For example, by developing a hypothesis based on theory and testing, it is from examination of facts that a conclusion is drawn<sup>38</sup>. In other words, it is the process of comparing two disparate things based on evidence believed to be accurate, for example, if said that all East African countries have enacted procurement legislations and Kenya is one of east African counties, it means therefore that Kenya has procurement legislation. Inductive reasoning is the method of reasoning which draw conclusion from the specific premises and forming the general ones.<sup>39</sup>For example, all east African countries have not passed procurement regulation; the conclusion is that even Uganda has no legislation.

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<sup>36</sup>Analogy and Analogical Reasoning, Stanford Encyclopedia of Philosophy, 2019 (accessed from plato.stanford.edu on 28.04.2023)

<sup>37</sup> Farrar, J.H., *Reasoning by Analogy in the Law*, Bond Law Review 1997 Vol. 9 No.2 at p. 149 (assessed from <https://www.researchgate.net> on 22.12.2019).

<sup>38</sup>Oxford Reference, Overview Deductive Reasoning, Oxford University Press 2023 (accessed from <https://www.oxfordreference.com> on 03.06.2023)

<sup>39</sup>Deductive Reasoning: What It Is, Why It's Important and Examples (accessed from <https://www.glassdoor.com> on 22.12.2019).

The rationale of applying this methodology to this study is due to fact that to identify legal gaps need to access the legal documents and based on the contribution of doctrinal research method to the development, consistency and certainty of law that is the existing e-procurement framework and how such framework ought to be so as to cover the challenges and associated legal flaws. In other words, it is important to gather, organize and describe the law, to provide comments on the sources used and then identifies and describes the underlying theme and examining how each source of law is connected to the study and hence assist in creating the e-procurement guidelines that can be applied in Tanzania.

### **1.7.2 Comparative Legal Research Method**

The comparative legal research method is a method of the study of laws done by comparing the laws of different nations and international organizations with the intention of comparing their different socio-cultural setting like customs, traditions and value systems.<sup>40</sup>

Comparative legal research has played notable role in the science of legal interpretation in national courts, legal reforms and unification and harmonization of laws.<sup>41</sup> Comparative legal research has been used to the study of societies since ancient Greece in 19<sup>th</sup> C whereby scientists and philosophers used to make cross-cultural comparisons to achieve various objectives. Cross-national comparisons have been used in order to understand the different of societies and their structures and

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<sup>40</sup> Ally, A., `Regulation of Mobile Money Service in Tanzania`, A Thesis in Fulfilment for Requirement of the Degree of Philosophy of the Open University of Tanzania P.21(accessed from <http://repository.out.ac.tz> on 18.12.2020)

<sup>41</sup>Makulilo, A. B., Ibid at p.63

institutions as a means of evaluating the solutions for common problems or to assess the transferability of policies among member states.<sup>42</sup> The comparative legal research is of advantage to the legal development process when it requires the things like modification, amendment and changes to the law.

The study applied the comparative legal research because of the fact that, this method helps to study legislative development, jurisprudence and legal doctrines of foreign laws for the intent of stimulating the awareness of the legal framework of e-procurement and therefore gain insights and educations that may be used in curbing the legal flaws existing in e-procurement and using the same to improve from ineffective e-procurement. Also, this method identifies the practices and experiences of regional and international legal instruments regarding e-procurement. These practices and experiences from other jurisdictions may be used as entry in addressing the legal flaws existing in the public sector in Tanzania hence resulting into the admission of the best practices and measures to overcome them.

In view of this context, the researcher identifies analyses and assesses the similarities and differences across Tanzania, Kenya and Uganda jurisdictions in order to gain the broader knowledge of the regulatory framework development of e-procurement in terms of best practice and procedure and use them to improve e-procurement in Tanzania. The reasons for selecting the sampled countries are due to facts that Kenya and Uganda countries share similar factors with Tanzania. Some of them include that all countries are common law countries, all belong to East African Community and

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<sup>42</sup>Hantrais, H., Comparative Research Methods, Social Research Update, Issue 13, University of Surrey, United Kingdom, 1995 (accessed from <https://sru.survey.acuk> on 28.04.2023)

East African Legislative Assembly.

### **1.7.3 Data in Research**

Data means technical information and materials developed and obtained from performance of certain services like reports, printouts, notes and documents such as constitution, statutes, law reports, field note books, questionnaires, books, gazettes, theses, dissertation, treaties or conventions, journal articles and other documentation<sup>43</sup>. There are two general types of data quantitative and qualitative and both are equally important. Quantitative data are information that can be measured in term of number because can be countable and therefore become reliable evidence while qualitative data are information about qualities and count be countable as they are not countable e.g. document reviews.<sup>44</sup>

In this thesis, data were collected through primary and secondary methods in both doctrinal and comparative legal research methods. The data collection tools are library reviews and online or web tracking. Therefore, the researcher has viewed through, the Tanzania public procurement regulations like the Public procurement Act 2011(Act No. 7 of 2011) and its legislations, the public procurement (Amendment) Act 2016 (Act No.5 of 2016) and the Regulation (GN) No. 333 of 2020, the Electronic Transactions Act 2015 (Act No. 13 of 2015), ICT laws and case law. Likewise, reviewed laws of Kenya related to the e-procurement functions such as the Kenya Public Procurement and Asset Disposal Act 2015 (Act No. 110 of 2015 R.E 2016) and its regulation No. 69 of 2020, Kenya ICT Master Plan, the Kenya

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<sup>43</sup>Data definition: 14k Samples-Law Insider accessed from <https://lawinsider.com> on 20.10.2025)

<sup>44</sup>Data Types and Sources, What Works accessed from <https://whatworks.org.nz> on 20.10.2023)

Information and Communication Act Cap 411A (RE 2011), Kenya Information and Communication (Amendment) 2009(Act No.1 Of 2009 and the Kenya Information and Communication (Dispute Resolution) Regulation 2010.

In the part of Republic of Uganda, the researcher dealt with analysis of the Public Procurement and Disposal of Public Assets Act 2003(Act No. 1 of 2003), the e-Government Master Plan 2012, the Electronic Transactions Act 2011, the Electronic Signature Act 2011 and, the Electronic Transactions Regulations 2013 No.32. On the side of Tanzania, the researcher checked the Public Procurement Act No. 7 of 2011 and its regulation no. 446 of 2013, the Public Procurement (Amendment) 2016 (Act No. 5 of 2016), the Electronic Transactions Act 2015 (Act No. 13 of 2015) and the Law of Contract Act 2002 Cap 345 (RE 2002).

Additionally, the international legal instruments like treaties or conventions were traced in order to trace see how they have contributed in regulating e-procurement framework in some of international organizations. These include the World Trade Organization on E-Procurement 2012, the UNCITRAL Model Law on Public Procurement 2011, the World Bank E-Procurement Framework and the Public Procurement Directives of European Union 2014. Others are OECD Recommendation of the Council on Public Procurement (2016), Constitution of Kenya 2010, Constitution of Uganda 2005(as amended) and Constitution of Tanzania 1977(as amended), the European Commission's Legislative Framework on Public Procurement and UN Convention on the use of Electronic Communication in Electronic Contracts 2005.

### **1.8 Scope of the Study**

With the exception of Zanzibar, the study examines the public sector throughout the Tanzania Mainland. Zanzibar is excluded because of the legal system of Tanzania Mainland is different from that of Zanzibar and the public procurement is a non-union matter.

### **1.9 Organization of the Thesis**

This thesis is organized into seven chapters. The present chapter is organised in contextual framework of the study. It contains the introduction, the statement of the problem, research objectives, research questions, significance of the study, literature review, research methodology and scope of the study.

Chapter two provides an overview of procurement and emergence of e-procurement in the public sector. Chapter three provides on the international and regional instruments governing e-procurement. Chapter four offers the regulatory development strategies of e-procurement in Tanzania. Also, Chapter five examines legal and regulatory development of e-procurement in Kenya and Uganda while Chapter six deals with the risks and regulatory issues in procurement technology and lastly, chapter seven covers the findings, conclusion and recommendations of the research.

## **CHAPTER TWO**

### **AN OVERVIEW OF PROCUREMENT AND EMERGENCE OF ELECTRONIC PROCUREMENT**

#### **2.1 Introduction**

This chapter provides a description of the meaning of procurement and e-procurement, evolution of e-procurement, the principles and benefits of e-procurement, strategic factors for e-procurement implementation in Tanzania and analysis of the role of e-tendering as a key component of e-procurement. The essence of the chapter is to examine the legal gaps existing in laws governing e-procurement in Tanzania.

#### **2.2 Concept of Public Procurement**

There is no specific definition of public procurement as various scholars and authors define public procurement variously. This is because the term is accredited depending on the perception of a society. For example, Organization for Economic Cooperation and Development describes the public procurement as the purchase by government and state-owned goods, services and works carried out efficiently and with the standards of conduct that ensure high quality of service delivery and safeguard of the public interest.<sup>45</sup>

Procurement process involves several essentials including requirement determination, supplier research, value analysis, purchase request, conversion to purchase order, contract management, evaluation of received order payment and

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<sup>45</sup>Organization for Economic Cooperation and Development, Public Procurement (accessed from <https://www.oecd.org> on 01.07.2022)



recording keeping. Therefore, there are stages where procurement process begins and where ends. These stages are needs recognition, purchase requisition, requisition review, solicitation process, evaluation and contract, order management, invoice approvals and dispute settlement if any and record keeping.<sup>46</sup>

Fazekas and Barret elaborate the public procurement as the process through which governments and public agencies spend public money on goods and services at the utmost integrity and efficiency.<sup>47</sup> Lloyd and McCue, the procurement to mean; (a) buying, purchasing, renting, leasing or otherwise acquiring any materials, services, construction or construction services (b) all functions that pertaining to any materials, services or construction services including description of requirements, selection and solicitation of sources, preparation and award of contract and all stages of contract administration.<sup>48</sup>

Khan pinpoints the public procurement as the government system for spending public money on acquisition of goods, works and services needed for public plans and projects done over preparation of annual budget, procurement planning and execution of such procurement plans with objectives of improving the living standards of peoples through converting the limited resources into timely, cost-efficient, and effective services.<sup>49</sup>

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<sup>46</sup>Procurement Process Flow and How & How to Optimize (The 2023 Guide) (accessed from <https://kissflow.com> on 02.11.2023)

<sup>47</sup>Fazekas, M and Barret, E.D., `Corruption Risk in UK Public Procurement and New Anti-Corruption Tools`, Government Transparency Institute, Budapest, Hungary 2015 P. 4 (accessed from <https://www.researchgate.net> on 01.07.2022)

<sup>48</sup>Lloyd, R.E and McCue, C.P., What is Public Procurement? Definitional Problems and Implications in The Arizona Procurement Code(2004), International Public Procurement Conference Proceedings, 2004 Volume 3 at p.5 (accessed from <https://www.researchgate.net> on 01.07.2022)

<sup>49</sup> Khan, N, Public Procurement Fundamentals Lessons from and for the Field, Emerald Publishing Limited 2018 at pp.1-2 (accessed from <https://books.emeraldinsight.com> on 01.07.2022)

The researcher's views regarding the above definitions on public procurement is that both scholars have well considered the purchasing of goods, services and work as essential function to benefit the public which covers objectives like ensuring value for money in the attainment of the required goods, works or services without forgetting the principles of procurement which include transparency, integrity, control of corruption and conflicts of interests, accountability, equal opportunities and equal treatment for suppliers.

### **2.3 Concept of e-Procurement**

Different scholars and literatures define e-procurement. For example, the Asian Development Bank outlines e-procurement as the use of information and communication technology by the government agencies, the bidding community, regulatory and oversight agencies, other supporting service providers and civil society to assist in the procurement of goods, works and services and in the management of contracts, guaranteeing good governance and value for money in public procurement as well as to contribute to the socio-economic development of the countries.<sup>50</sup>

Croom and Bandon-Jones describe e-procurement as a process to download bidding documents from website; submission of bids through an electronic tender box; and development of procurement management information systems (PMIS) to support reporting, oversight and monitoring as well as the publication of contract awards on

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<sup>50</sup>Asian Development Bank, 'E-Procurement, Guidance Note on Procurement', Metro Manila, Philippines, 2018 P.1 (accessed from <https://www.hws.edu> on 11.11.2019).

the website of the procurement regulatory board.<sup>51</sup>

Kaliannan states that e-procurement is the use of electronic methods in every stage of the purchasing process from identification of requirements through contract management and payments.<sup>52</sup> The Tanzania Public Procurement 2011 Cap 410 R.E 2022 defines e-procurement as the use of information and communication technology by the government or its agencies in running procurement functions.<sup>53</sup>

However, there are challenges associated with the above described definitions. These include for instance, many of the contributors of the definition of e-procurement has pinpointed the government agencies, regulatory and oversight agencies or public sectors as core user of the procurement function whereas forgetting other stakeholders such as private sector, civil society and construction industry who are also the beneficiaries of the procurement and they contribute in economic development of the country. These other stakeholders also do purchase of the goods and services, generate tax revenues to finance essential social and economic infrastructure and develops innovative solutions to accommodate development challenges despite being not recognized.

## **2.4 Evolution of e-Procurement**

Between 1980s and early 1990s, many countries were performing poorly in meeting their public services objectives. Thus, reforms were formed to create effective public

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<sup>51</sup>Croom, S and Bandon-Jones, A., *Key Issue in E-procurement: Implementation and Operation in Public Sector*, Journal of Public Procurement 2005 Vol. 5 No 5, Pr. Amedics Press, US at pp. 368-369 (accessed from <https://www.researchportal.bath.ac.uk> on 14.11.2017).

<sup>52</sup>Kaliannan, M et al, *Electronic Procurement: A Case Study of Malaysia` e-Perolehan (e-Procurement) Initiative*, International Journal of Electronic Governance 2009 Vol. 2 Nos 2/3 at P.102 (accessed from [www.semanticscholar.org](http://www.semanticscholar.org) on 10.11.2019).

<sup>53</sup>The Public Procurement Act 2011 (Act No.7 of 2011) S.3.

procurement systems both conceptually and organizationally.<sup>54</sup> That evolution sped up in the late 1980s as governments at all levels enlarged the public demand for increased transparency in public procurement and concerns about efficiency, justice and equity, as well as changing environments by rapid growing technologies and complexities of international and regional trading agreements.<sup>55</sup>

From there, a large number of governments asked the public sector to use e-procurement as a purchasing practice to lower transaction costs involved in placing orders from suppliers.<sup>56</sup> This means that the emergence of information and communication technology, internet and other web-based technologies lifted the traditional paper-based procurement to the e-procurement system which started in 1980s as prompted by the development of Electronic Data Interchange (EDI) that allowed customers and suppliers to send and receive orders by a way of call-forward networks and email.

From the 1990s, technology improved and software companies began to develop online catalogues particularly for vendors that recognized e-procurement.<sup>57</sup> Around 2000s, following the emergence of the Ariba and Commerce One with aid of buy-side solutions, big firms started to build up their electronic-multi vendor and customer services catalogues.<sup>58</sup> This was assisted by the United Nations Commission

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<sup>54</sup>Addo, S. K., *Role of Procurement Practices on the Performances of Projects Funded by District Development Fund in Ghana. A Survey of Greater Accra*, Project Management Scientific Journal 2019 Vol. 3 Issue 7 at p. 74 accessed from <https://www.academia.edu/on/01.07.2022>).

<sup>55</sup> Ibid.

<sup>56</sup> Ibid.

<sup>57</sup>Njwayo, J.A., *Legal Overview of Electronic Procurement in Tanzania*, International Journal of Legal Developments and Allies Issues 2021 Vol. 7 Issue 2 at p. 207 (accessed from <https://thelawbrigade.com> on 01.12.2021)

<sup>58</sup>Watuleke, J., *E-Procurement: Evolution and Adoption. A Review of Literature*, East African School of Higher Education Studies and Development (EASHESD), IRJDO-Journal of Education Research, 2017 Vol. 2 No.5 at pp. 51-52 (accessed from <https://www.cees.mak.ac.ug/on/15.12.2019>).

on International Trade Law (UNCITRAL) which was designed to use of e-procurement by designing legal framework for e-procurement through Model Law on Procurement of Goods, Construction and Services in 1994. This Model Law provided for all procedures and principles for conducting various types of procurement proceedings, focusing on the value for money for the taxpayers and avoiding manipulation or corruption.<sup>59</sup>

In 2003, UNCITRAL agreed to commence extra work on public procurement whereas in 2004, the UNCITRAL`s Working Group on procurement was given a task of updating the Model Law to reflect new practices in e-procurement.<sup>60</sup> The experience gained in the use of the Model Law as a basis for law reform resulted into e-procurement was considered to be an important and positive innovation.<sup>61</sup> Since then, e-procurement has become a platform for sending and receiving electronic orders as it has also improved the speed at a lower cost and improved workflow of the procurement process and connectivity of the supply chain.

Briefly, the involvement of the United Nations Commission on International Trade Law (UNCITRAL) in e-procurement by designing a legal framework for e-procurement influenced other countries in the world to adopt e-procurement. Moreover, the development in information and communication technology, internet and other web-based technologies has led to the shift from the traditional paper-based procurement to the e-procurement system. This shift has led to the

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<sup>59</sup> Nicholas, N., 'Policy Choices in the Implementation of Electronic Procurement: The Approach of the UNCITRAL Model Law on Procurement to Electronic Communications (accessed from <http://www.ipa.org> on 15.12.2019).

<sup>60</sup> Ibid.

<sup>61</sup> Ibid

improvement of the procurement process in general, and specifically to reduce costs, manage the inventory in efficient manner, whereas minimization of delays, control of corruption and achievement of value for money.<sup>62</sup>

## **2.5 Types and Objectives of e-Procurement**

E-procurement encompasses various forms. According to Tsuma and Kanda, the types or forms of e-procurement include e-Advertisement, e-Tendering, e-Auction, e-Submission, e-Catalogue, e-Government, e-Consumer, e-Contract and e-Payment.<sup>63</sup> Other forms of e-procurement include Web based Enterprise Resource Planning (ERP), e-Maintenance, Repair and Overhaul (e-MRO), e-tendering, e-reverse tendering and e-informing.

## **2.6 Objectives and Benefits of e-Procurement**

According to OECD Recommendation of the Council on Public Procurement, principles of e-procurement consist of efficiency, transparency, integrity, accountability, balanced development and economy.<sup>64</sup>

### **2.6.1 Consistency**

Consistency in procurement implies the setting, rationalization and integration of procurement processes simply standardization from initial stage of identifying the needs, specifications, budget establishment, research for the potential suppliers, evaluation of products up to the time of negotiating contracts and later service level

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<sup>62</sup>Mchopa, A, Ibid at p. 1.

<sup>63</sup>Tsuma, V. I and Kanda, M., *Factors Affecting Adoption of e-Procurement System among International Non-Governmental Organizations in Kenya*, International Journal of Academic Research in Accounting, Finance and Management Science 2017 Vol.2 No.2 at p.169 (accessed from <https://www.hrmar.com> on 10.11.2017).

<sup>64</sup>Checklist supporting the Implementation of OECD Recommendation of the Council on Public Procurement: E-Procurement (accessed from <https://www.oecd.org>) on 03.04.2022).

agreement. Some purchasing entities or organizations allocate a personnel or committee to ensure that all purchases align with standards. One of advantages is to reduce administrative costs and processing times and acts as a tool for contract award, management and cost saving.<sup>65</sup>

Consistency can be insured by every employee involved follow the same guideline, reducing chances of errors and misunderstanding. However, in Tanzania, this principle of consistency in procurement is not well achieved as there is deficiency in abiding by standardization. For instance, there is no procurement policy which may affect in-depth plans and strategies for effective e-procurement processes. According to principle of consistency, the standardization of procurement must be across the public procurement sector.

### **2.6.2 Transparency**

The principle of transparency in procurement refers to as openness of a variety of practices such as publishing procurement policies, advance publication of procurement plans, advertisement of tender notices, disclosure of evaluation criteria in solicitation of documents, publication of contract awards and prices paid, conflict of interest disclosure requirements for public procurement officials and publishing supplier sanction lists.<sup>66</sup> Transparency is essential strategic duty to enhance trust in relationships as it creates a climate of trust among peoples and reassures people to believe more in governments, promotion an environment of openness that allows

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<sup>65</sup> Ibid

<sup>66</sup> Ballard, T., Transparency and Public Procurement, Supplement to the 2011 Annual Statistical Report on United Nations Procurement, UNOPS, 2012 at p. 1 (accessed from <https://www.undp.org> on 01. 12.2022)

citizens to control institutions and take part in decision making.<sup>67</sup> Thus, the application of e-procurement is a way to increase transparency and efficient in the procurement of government goods and services. Likewise, transparency improves market access and healthy business competition, level of efficiency of the procurement processes, support monitoring and auditing process and meets the need for real time access to information.<sup>68</sup>

### **2.6.3 Economy**

Economy in e-procurement is an innovative way to consolidate the purchasing supremacy, and facilitates achievement of economies of scale and value for money which involves unified purchasing through an integrated e-government procurement system by multiple government agencies to enable collection of demand for common expenses collaborative procurement.<sup>69</sup>

### **2.6.4 Balanced Development**

Balanced development in e-procurement involves the public to allow commercial incentives that encourage efficiency and competition in order to ensure economies of scales. It is a catalyst for procurement reform as it encourages the less developed countries like Tanzania to move towards a successful position.<sup>70</sup> Through the balanced development principle in e-procurement deceitful activities such as

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<sup>67</sup>Ratiko, B and Setiyawati, H., The Effects of Transparency Principles and e-Procurement on the Function of the Internal Control Systems and the Impact on Financial Accountability, International Journal of Management Studies and Social Science Research 2022 Vol.4 Issue 2 at p.163

<sup>68</sup> Ibid P.61

<sup>69</sup> Asian Development Bank (ADB), E-Government Procurement Handbook, 2013 at p. 11 (accessed from <https://www.adb.org> on 23.11.2019).

<sup>70</sup>Satyanarayana. J., 'Concept of e-Procurement, Capacity Building Workshop under NEGP', National Institute for Small Government (NIGS), Great Zimbabwe University held from 4-6 May, 2017 (accessed from [nimacheldit.gov.in](http://nimacheldit.gov.in) on 18.12.2019).



corruption; growing business contact and competition for government expenses which result into high economy may be controlled hence improving efficiency and processing costs reduction.

### **2.6.5 Integrity and Accountability**

Integrity and accountability are also principles of procurement. Integrity means the use of funds, resources, assets and authority as per planned official purposes which represent public interest.<sup>71</sup>The integrity principle helps to controls corruption, fraud and theft, collusion and abuse and manipulation of information and the waste and abuse of organizational resources in procurement function.<sup>72</sup> Accountability principle entails that the officials involved in procurement are to be responsible for the actions, the decisions they have taken and for the resulting outcomes.

Establishment of a clear chain of responsibility with effective control mechanisms based on an appropriate segregation of duties and obligation for internal reporting while taking the regularity of controls that are equivalent to the risks involved in sense that internal and external controls should complement each other and coordinated carefully to avoid loopholes.<sup>73</sup> Additionally, everyone who takes part in any stage of procurement processes, he/she must be answerable for what he/she did and also for the results. However, in procurement processes in Tanzania, there is problem of proper adherence to accountability principle. There are some of staff who discharge essential transactions in e-procurement but their liability or right of

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<sup>71</sup>OECD Principles for Integrity in Public Procurement, OECD Publishing, Paris France 2009 at p. 17 (accessed from <https://www.oecd.org> on 06.12.2018)

<sup>72</sup> Ibid

<sup>73</sup> Ibid at p.41

processing issues of procurement are not answerable as they are not taken care by the Public Procurement 2011. For example, the information and technology specialists (IT Specialists). IT specialist conducts greatest preparation of procurement documents and tools including resolving network during procuring issues online.

Even the Chief Executive Officer (CEO) of the procuring entity receives procurement guides from the IT specialist who is however not mentioned anywhere into the law. Where there is a problem of non-production of things like local purchaser order due to the network which is attended by an IT specialist, yet blames go to the procurement entity. Moreover, the procurement officer who is imposed in the supervision of the value for money as per by-laws may not be adequately involved unless it follows systems and tools. Failure of recognition of IT specialist by-laws may disturb morality and compliance of the highest standard of ethics and refrain from fraud and corruption.

## **2.7 Benefits of e-Procurement**

Application of e-procurement has many benefits and positive impact of government performance. Some among many benefits of applying e-procurement are explained hereunder:

### **2.7.1 Tracking of Expenditure and Revenue**

E-procurement traces tracking of expenditure and revenues, for instance, the use of an online system to trace and control all expenditures and revenues by means of Epicor software. This is a financially unified system, proficient to check both budget

and funds management; financial businesses, receipts and payments; reports; procurement processes like preparation of procurement documents such as Local Purchaser Order and other documents operated by Tanzania Inter-banking Settlement System (TISS), intended to improve efficiency in payments.<sup>74</sup>

Critically, this objective has raised a legal gap in law and practice in Tanzania because the Epicar software in Tanzania is not uniform and is differently used by different procuring entities. For example, while the PPRA which uses ACCPac software, National Social Security Fund (NSSF) uses ORACLE and Tanzania Ports Authority (TPA) uses SIP software. Even the Tanzania Bureau of Standards which is a guardian of compliance of standards for items of universal nature and disregarded items which are peculiar in nature as stated in s. 3 (1)(2) of the Standard Act 2009 (Act No. 2 of 2009) that:

*The function of the Bureau shall be to promote the standardization of specification of commodities and services, imposing quality assurance and environmental management systems procedures, issue national standard and approve standard marks for items of general nature.*

In the other way around, the same Act is silent on the ICT equipment and related items including the software to be used.

## **2.7.2 Corruption Control**

Corruption is said to exist in business globally. This statement is proved by Transparency International which has elaborated that corruption can happen

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<sup>74</sup> Tanzania Inter-bank settlement System (TISS)-BOT (accessed from <https://www.bot.go.tz> on 06.12.2018).

anywhere in business, government, the courts, and across all sectors.<sup>75</sup> Therefore e-procurement is a tool of controlling corruption in procurement. This is operated by reducing the conventional mode of networking face to face as all details are displayed on a digital platform, where everyone in the whole world can access. Logically no one can volunteer to disclose deals of corruption freely on digital platforms<sup>76</sup>. For that reason, the public or bidder can monitor and view all procurement activities through the e-procurement government web portal to help in disclosing all the procurement related information and making any officer not to easily add extra specifications for their private benefit.<sup>77</sup>

### **2.7.3 Increased Trust in Government**

Principles of procurement such as transparency, increased operational efficiency, better government service delivery and accountability are key in the investment cycle and catalysts for improving trust and stability and therefore important for emerging economies of the nations.

## **2.8 Position of Electronic Tendering (e-Tendering)**

Electronic tendering is one of crucial components of e-procurement. It was developed from a traditional tendering system whereby the owner of a tender could issue the advertisement of tender through media like newspapers within a specified

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<sup>75</sup> Transparency International, the Global Coalition Against Corruption (accessed from <https://www.transpaerency.org> on 29.04.2023)

<sup>76</sup>Malekia, D., 'E-procurement as Anti-corruption Tool in Public Procurement in Tanzania', A Paper presented at the 8<sup>th</sup> International Public Procurement Conference, Arusha International Conference Centre (AICC), Tanzania from 8-10<sup>th</sup> August 2018 at p. 9 (accessed from [www.iaa.ac.tz](http://www.iaa.ac.tz) on 04.12.2018).

<sup>77</sup>Neupane, A et al, 'Role of Public E-Procurement Technology to Reduce Corruption in Government Procurement', International Public Procurement Conference held at Seattle, Washington, US from 17-19 August, 2012 (accessed from <https://www.eprints.usq.edu.au> on 04.12.2018).

time. In contrast, the electronic tendering system is just evolved from a modern dial up on the way to a modern computer access; simply the internet based tendering system.<sup>78</sup>

Different scholars and literatures define e-tendering differently. The following are examples; E-tendering is defined as the process of issuing and receipt of any tender documents in electronic set-up.<sup>79</sup>E-tendering is also a process of conducting the tendering through an electronic system to perform a contract process electronically.<sup>80</sup>Furthermore, e-tendering is a process of examining suppliers by a way of sending requests for information and prices and receiving the responses of the dealers by means of the internet technology.<sup>81</sup>

Jahanshahi and Mohamed articulate about an e-tendering as a system that embraces electronic publishing, communicating, accessing, receiving and submitting of all tender related information and documentation by internet.<sup>82</sup>Therefore, e-tendering system eliminates administrative costs and paperwork procedure. The study adopts the above both the definitions of e-tendering provided by scholars. This is because both scholars have agreed with the use of information and documents through the internet in procurement processes which the researcher concurs with.

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<sup>78</sup> Elias, E. M et al., E-Tendering System for Construction Projects, Final Project of MSc. Information Technology Semester June-November 2003, Utara University, Malaysia (accessed from <https://www.repo.uum.edu.my> on 19.05.2022).

<sup>79</sup> Royal Institute of Chartered Surveyors (RICS), Practice Standards, E-tendering, RICS Guidance Note, 2<sup>nd</sup> Edition (GN 22/210), United Kingdom, 2010 P.2 (accessed from <https://www.rics.org> on 08.05.2022).

<sup>80</sup> Du, R, et al., Defining Security Services for Electronic Tendering, Information Security Research Center (ISRC), Queensland University of Technology 2004 at p.45 (accessed from <https://dl.acm.org> on 08.05.2022).

<sup>81</sup> Bets, M et al, 'Security and Legal Issues in E-tendering', Cooperative Research Center for Construction Innovation, Icon.Net Pty Ltd, 2005, Australia Report No. 2002-067-A at p.6 (accessed from <https://www.aphrdi.ap.gov.in> on 07.05.2022).

<sup>82</sup> Jahanshahi, H and Mohammadi, S., 'A Secure E-Tendering System, Conference Paper, KhajeNasir University of Technology, Iran, 2009 (accessed from <https://www.researchgate.net/publication/224570489> on 15.12.2019).

## **2.9 Common Forms of e-Tendering Systems**

The common types of e-tendering are embraced: (i) where a principal wish to conduct online tender and engages an expert of e-tender service, (ii) where tendering parties provide the e-tendering technology for the participants<sup>83</sup>. The mechanisms of the systems help the process of pre-qualification, registration, public invitation, tender submission, close of tender, tender evaluation and tender award<sup>84</sup>. There is a number of e-tendering systems to a government though each system offering similar communication tools, document management tools and audit trails and also, any online tender must guarantee the legal compliance within a secure environment.<sup>85</sup>

## **2.10 Qualities of Standard e-Tendering**

The standard e-tendering must contain the following stages:

### **2.10.1 Qualification and Compiling of Tender List**

A principal or an owner of tender is required to comply with the proposed tenderers' list by assessing each contractor's technical qualifications, financial ability as well as publishing description on the preferred tenderers and making enquiries about their willingness to tender. In practice, the critical challenge with this criterion is that tenderers with no adequate capital are less considered even if they are technically qualified.

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<sup>83</sup> Carnie, J., Law of Tendering, Clendons Barristers and Solicitors, NorthShore, Australia 2016 (accessed from <https://www.clendos.co.nz> on 08.05.2022).

<sup>84</sup> Ibid

<sup>85</sup> Betts, M et al., Towards Secure and Legal E-Tendering, ITcom 2006 Vol. 11 at p. 90 (accessed from <https://www.researchgate.net> on 90 08.02.2022).

### **2.10.2 Tender Invitation and Submission of Offer**

The principal establishes detailed contract terms and invites all tenderers in the compiled list; the contractors submit their offer to the principal or buyer. The weakness of this method in developing countries is that majority of people live in remote areas where there is no infrastructure for e-procurement whereby e-tendering is one of the components.

### **2.10.3 Tender Assessment**

After the principal opens the offer, he or she assesses each offer compared to its quality and price and then do post-offer negotiations with combine contractual conditions. This practice shows that the price is highly given more priority than quality. As result, substandard items are purchased.

### **2.10.4 Tender Receiving**

The principal makes decision and awards the contract to the winning tender followed by preparation of the formal contract evidence to finalise the contracting process. An example of standard processing process is the Public Regulations 2006 for England and Wailes.<sup>86</sup> The legal basis of e-tendering is established on the Directive 2014/24/EC of 26 February 2014 on public procurement and Directives 2014/25/EU of the same date on procurement meant for entities operating in water, energy, transport and postal sectors. These regulations lead to the interpretation of the cross-border tendering system processes for both companies and contracting authorities in Europe as provided below:

44(1) - If an e-tendering is used in tenders admitted electronically must be

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<sup>86</sup> Hill, K, Supra

stored in a way that guarantees the integrity of data is maintained;

44(4) - Where a public sector procurement requires bidders to use an e-tendering solution, the equipment used must be non-disc, general available and interoperable within information and communication technology products in general use; and

44(5) - Any e-tendering system does not allow tender materials to be accessed before the due date and time. Only authorized persons can access the material and any a legal access is detected and recorded and opening of tenders requires more than one authorized person.

The essence of the above articles is adherence to code of conduct in terms of integrity and interoperability during the opening of the tender particularly the electronically tendering that should not be retrieved before the arranged time and date. Thus, these principles become the proper criteria for any public sector adopting the electronic procedure globally.

## **2.11 Law Governing Electronic Tendering System**

Any e-tender system must guarantee and maintain legal compliance within a secure environment and potential architecture. Therefore, component of e-tendering including the following;<sup>87</sup>

### **2.11.1 Authentication**

In electronic tendering, authentication covers the possibility of any person to submit a tender without the authority or forging it by adopting another person's identity

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<sup>87</sup> Betts, M, et al, Ibid at p. 91



either in pre-qualification or registration as provided in Art.13 of the UNCITRAL Model law.

### **2.11.2 Time of Close of Tender**

In view of electronic environment, there is an issue of tenderers to submit their tenders at the specified time and place.

Art. 52(1)(2) of the UNCITRAL Model Law on Electronic Communication provide an issue of time as follows:

15(1) Unless otherwise agreed between the originator commonly called creator and the addressee usually called receiver, the communication of a data message occurs when it enters an information system outside the control of the originator or of the person who sent the data message on behalf of the originator.

(2) Unless otherwise approved among the originator and the addressee, the time for receipt of a data message is determined in the following ways:

(a) if the addressee has nominated an information for the purpose of receiving data messages, receipts occurs;

(i) at the time when the data message enters the planned information or (ii) if the data message is sent to an information system of the addressee that is not the designated information system, at when the data message is repossessed by the receiver;

(b) if the addressee has not nominated an information system, receipt occurs when the data message enters an information system of the receiver.

Art. 49(a)(b) of UNCITRAL Model Law in event of the place where the information system is located as provided:

(4) Unless otherwise decided between the originator and the addressee, a data message is deemed to be transmitted at the place where the originator has its place of business and is believed to be received at the place where the addressee has its place of business.

Therefore, for the purpose of the above paragraph:

- (a) If the originator or the addressee has more than one place of business, the Place of business is that which has the closest relationship with the underlying transaction, the principal place of business.
- (b) If the originator or the addressee does not have a place of business, a locus is to be made to his habitual residence.

### **2.11.3 Award of Tender and Formation of Contract**

At a stage of electronic tendering contract formation, there is a need to apply electronic signature to warrant the validity of an electronic contract to resolve legal uncertainties.<sup>88</sup> This is because the conditions for a tender is that it is needed to include the provisions of time at the contract formation, the agreed details of the contract, the time at terminations of tender submission accepted, responsibilities for maintenance of electronic records on both parties and the right to revoke the tender after submission.<sup>89</sup>

### **2.11.4 Archiving**

In the development of computer technology, archiving means to store electronic

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<sup>88</sup> Mohmmadi, S and Jahanshahi, Supra

<sup>89</sup> Duncan, W, et al., Ibid at p. 18

information that is not needed to be used regularly<sup>90</sup>. In course of electronic tendering, the government or a public sector is required to keep and maintain records of the tender process in case of litigation. Duncan et al elaborate that Art. 9 (1) (2) of the UNCITRAL Model Law that provided for the application of rules of evidence in legal proceedings as follows:

9 (1) - In any legal proceeding, nothing in the application of the rules of evidence apply to deny the admissibility of a data message in evidence;

- (a) On the sole ground that it is a message or
- (b) If it is the best evidence that the person adducing it could reasonably be expected to obtain on the ground that it is not its origin.

(2) - Information in the form of data message shall be given the evidential weight in form of the message generated, stored or communicated to the reliability and the integrity of the information maintained as well as to the manner its originator identified and any other relevant factor.

## **2.12 Architectures for e-Tendering**

There are three architecture systems as provided by Mohammadi and Jahanshahi;<sup>91</sup>

### **2.12.1 Principal Based Architecture**

This is typically used by government organizations. This architecture works in a form of the principal as a main administrator who is accountable for safeguarding the validation of the tenderers. It is done by the tenderers to verify the identity of the

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<sup>90</sup>Cambridge Dictionary, Cambridge University Press Assessment 2023 (accessed from <https://dictionary.cambridge.org> on 10.05.2022).

<sup>91</sup>Mohammadi, S and Jahanshahi, Ibid at p. 64.

principal and all communication brought from the principal. It is the principal who maintains the box of tender application and stores all submitted documents in secure attitude, while making sure that no tender documents are submitted and reviewed after the tender closing time including securing storage and achieving documents after the tender is awarded.<sup>92</sup>

### **2.12.2 Trusted Third Party (TTP) Based Architecture**

Trusted Third Party Based Architecture is architecture used by autonomous government bodies or even private industry to authenticate all parties in architecture. TTP acts as a certificate authority and cryptographic keys to the owner of the tender. In short, principal and tenderers include imposing and maintaining the e-tendering necessities such as non-repudiation, authentication and record keeping.<sup>93</sup>

### **2.12.3 Distributed Trusted Third Party (DTTP) Architecture**

The Distributed Trusted Third-Party Architecture (DTTP) is a structure in e-tendering that warrants availability of security facilities such as the time server and certificate specialist. Normally, in this architecture, the principal becomes the host of the tender box and DTTP provides security facilities to preserve the e-tendering process.<sup>94</sup>

## **2.13 Critical Factors in Execution of e-Tendering**

Adoption of e-tendering process is welcomed by different factors that support the implementation of e-tendering. According to Alshawi and Luo, those success factors

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<sup>92</sup> Ibid

<sup>93</sup> Ibid

<sup>94</sup> Ibid

include the tendering phase, people and process and e-tendering environments.<sup>95</sup>

### **2.13.1 Tendering Phase**

The tendering phase forms a contractual and legislative agreement between a client and a consultant, contractor and other members of the organization. Normally, this phase is information intensive paper work where by tender documents comprise the invitation to tender, forms of tender, architectural drawings, bill of quantities, health and safety agreements.<sup>96</sup>

### **2.13.2 People and Process**

People are a determinant force in determining the achievement of the commitment of e-tendering and collaborative environments. When the individual has willingness to change, willingness and objective to explore new changes, highest organization support and innovation between employees and motivation of supervisor may drive the desire to modification from the old tendering model to e-tendering model.<sup>97</sup>

### **2.13.2 Electronic Tendering Environments**

The growth of collective environments triggers the fragmented nature of the industry or various organizations to advance a version of cooperative environment and e-tendering services. The foremost driver of electronic tendering is to gain competitive advantage through upgraded work procedures, efficient data sharing and re-using,

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<sup>95</sup>Alshawi, M and Lou, E. W. E., *Critical Success Factors for E-Tendering Implementation in Construction Collaborative Environment, People and Process Issues*, Journal of Informational Technology in Construction 2009 Vol.14 at pp. 99-100 (accessed from <https://www.itcon.org> on 15.05.2022).

<sup>96</sup> Ibid

<sup>97</sup> Ibid

and better returns on investment and strategic partnership. Harnessing e-tendering in the organization can provide a comparative advantage over the improved efficiency, speed, data accuracy and effectiveness in day to day business processes and management.<sup>98</sup> Before any e-tendering is done for a certain business, there are major tasks to be performed for the purpose of achieving efficiency. These tasks may include risk assessment, security requirement analysis and security assurance requirements analysis.

Risk management assessment is the process used to identify possible threats like natural threats and information technological threats. Natural threats that involve things like floods, hurricanes and pandemic diseases whereas information technological threats contain things like loss of connectivity, hardware failure and corrupted data<sup>99</sup>. The procurement risk assessment (PRA) is the whole process of accessing the sector, its agency or countries so as to identify the threats that the sector or country may face in use of resources either through leakage or inefficiency<sup>100</sup> in order to quantify the effects of the identified risks.<sup>101</sup> The outcome of quantified effects may determine the efficiency of such e-tendering.

The security requirement is a statement of security functionality which ensures one of many different security properties of software is satisfied to solve a specific

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<sup>98</sup> Ibid

<sup>99</sup> Risk Assessment, National Terrorism Advisory Board, Updated 225.02.2022 (<https://www.ready.gov> accessed on 24.07.2022)

<sup>100</sup> Cambodia: Uplands Irrigation and Water Resources Management Sector Project, Ministry of Water Resources and Meteorology, Government of Cambodia, 2015 at p.1 (accessed from <https://www.adb.org> on 24.12.2022)

<sup>101</sup> Agerberg, J and Agren, J., `Risk Management in the Tendering Process: A Survey of Risk Management Practices within Infrastructural Construction`, Master of Science Thesis in Master`s Programme Design and Construction Project Management, Chalmers University of Technology Sweden 2012 at p. 2 (accessed from <https://wwwpublications.lib.chalmers.se> on 24.12.2022)

security problem or removing possible vulnerability.<sup>102</sup> Therefore, security requirement analysis is essential in order to obtain security measures by different stakeholders such as development team, business team and users who need to understand the key sensitivities and business consequences caused by risk of security flaws. Thus, security core principles that guide the information security area are confidentiality (preserving the access control and disclosure restrictions on information), integrity (avoiding the improper authorization of information modification and destruction and availability (i.e. the information must be available to access and use all the time reliably)).<sup>103</sup>

Security Assurance Requirement Analysis (SARA) is the criteria for information technology security evaluation that provides for the measures taken in the development and evaluation of product to assure compliance claimed on security functional requirements. SARA is determined by analysing the security requirements of the IT system influencers, business drivers, policies and the IT system target environment.<sup>104</sup>

Debbabi who is a fellow in cyber-security narrates that SARA is the process that certifies a particular product or service compared to the given standard or against a certain profile.<sup>105</sup> He goes further to say that, there are several security assurance tools, techniques and metrics available but the most frequently used criterion is

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<sup>102</sup> Define Security Requirements, OWASP Top Ten Protective Control 2018, The OWASP<sup>(R)</sup> Foundation (accessed from <https://www.owasp.org> on 24.07.2022)

<sup>103</sup> Silva, M. A. and Danziger, M., The Importance of Security Requirements Elicitation and How to do it, A Paper Presented at PMI<sup>(R)</sup> Global Congress, EMEA, England, London 2015 (accessed from <https://www.pmi.org> on 24.12.2022)

<sup>104</sup> Fundamental Concept of IT Security Assurance, ISACA Journal Archives 2012 (accessed from <https://www.isaca.org> on 24.07.2022)

<sup>105</sup> Debbabi, M., Security Assurance - Challenges and 5 Tips for a Safer Connected Future, Concordia University, USA 2021 (accessed from <https://www.ericson.com> on 24.12.2022)

information technology security and evolution simply known as the common criterion. This criterion uses an increasing scale of evaluation assurance levels, balancing the level of assurance with cost and possibility of acquiring that degree of assurance. Additionally, he magnifies the idea by narrating that, there are two parts to security assurance which are development and evaluation. The developer figures the product with security awareness but the evaluator verifies it.<sup>106</sup> Therefore, the risk assessment, security requirement analysis and security assurance requirement analysis have impact in testing the efficiency of the e-tendering procedure.

#### **2.14 Regulation of e-Tendering in Tanzania**

The regulation of tendering in Tanzania is regulated by the Public Procurement Act, 2011 (Act No.7 of 2011) and its regulation of 2013.

S.31 of the Procurement Act 2011 provides a tender board for procurement of goods, services, works and disposal of public asset by tender and e-tendering procedure comprises of following;

##### **2.14.1 Electronic Advertisement for e-Tendering and e-Auction**

According to S. 347(1)(2)(3) (4) of the Public Regulations of 2013, the electronic advertisement for e-tendering and e-auctioning should be done by the procuring entities after the preparation of request for tenders using an online linked template available from their secured dashboards and it should be published in e-PPs portal. The prepared request must encompass the full descriptions of the goods, works or services, time-schedule and other applicable conditions. The tender documents must

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<sup>106</sup> Ibid



be available on the e-PPs portal. All interested users and the date of tender notice published in the e-PPs portal shall be treated as the starting of tender. A positive part of this provision is that it reminds suppliers omnipotence abidingly principles of procurement as it encourages equal treatment and time management among the tenderers.

#### **2.14.6 Up-loading Tender Documents for e-Tendering**

The duty of the tenderers in e-tendering is to submit their tenders online before the deadline specified in the request for tenders after signing the same with e-signature by their approved representative. Another obligation of the tenderer is to upload documents, fill in the essential online forms, amend and prove the documents before final submission and complete part by part additional activities while observing that any attempt to submit an incomplete tender is not allowed by the e-PPs.<sup>107</sup>The provision enhances accountability for a tenderer who is not seriously committed.

#### **2.14.7 Electronic Submission (e-Submission)**

The Public Regulation 2013 orders that a tender submitted electronically shall be legal, duly authorized and executed by the tenderer and it has binding legal effect. For the identity or authentication purposes, the tender shall bear e-signature or digital signature and the identity of the tenderer may be verified with a follow-up. A tender made over the e-PPs is received in full before the closing time and the tenderers receive an acknowledgment of receipt or amendment through the e-PPs system. Another obligation of tenderers in e-submission shall be to guarantee the integrity,

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<sup>107</sup> Ibid S. 348(1)(2)

completeness and authenticity of their tender submission. Other obligation is to limit unreadable electronic records and files containing the tender for any reason which grounds the tender submitted through e-submission unconsidered.<sup>108</sup>The challenge available in Tanzania is that e-signature lacks an oversight body to supervise principles of procurement. As a result, the fate of such procurement principles and other related functions suffer from not being obeyed.

#### **2.14.8 Formation and use of the Evaluation Committee**

The Procurement Regulations 2013 recognizes what the Evaluation Committee does by asserting that the procuring entities in receipt of the tenders shall create a tender evaluation committee on e-PPs portal, and members of the committee shall be familiar with the online tools to enable a successful evaluation process.<sup>109</sup>

The admission to the dashboard by the evaluation committee shall be for the specified period defined by procuring entities. The committee members shall fill in and sign the online agreement forms before evaluation and joint certification after evaluation as provided by the online system. The online assessment of tenders shall follow the pre-defined workflow set-up by the procuring entity to evaluate the specific tenders; while use automated e-PPs to generate results of the evaluation based on the criteria specified by the procuring entity. It is not restricted if some of the evaluation may be accomplished offline provided the results of evaluation are entered into the system to progress with generation of the final assessment report. The committee is forbidden to alter any data provided by the tenderer and the agreed

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<sup>108</sup> Ibid S. 351(1)(2)(3)(4)

<sup>109</sup> Ibid S. 353 (1)(2)

final report that determines a successful tenderer as computed by e-PPs.<sup>110</sup>

It is the view of this study that this provision regarding the formation of an evaluation committee is like a tender board which may cause additional operation cost. This leads one to ask “Why should be an operation committee while the system itself is open and available and it can do the same? Alternatively, the tele-conference may be entertained by procurement unit staff.

#### **2.14.9 Contract Award under e-Auction**

The base for an e-auction award considers that the contract is awarded at the lowest prices to the qualified tenderer in the event of purchase or highest price in the case of disposal. Also, the contracts awarded from e-auctions shall be published online showing the name of a successful tenderer and awarding price. Moreover, no any negotiation can be effected during or after the e-auction process is closed.<sup>111</sup> The base of e-caution to be considered in regard to the lowest price bidder is challenging the criterion for the lowest price bidder is an outdated phenomenon. The available experience shows that this criterion is a causative agent of low-quality goods, works and services. To refrain from the low-quality goods or services, there is a need to entertain the criteria like quality or excellence of goods or works or services to be the first priority. The criterion of lowest price may come as a secondary consideration.

#### **2.14.10 Certification and Payment Processing**

S.365 (1)(2)(3) of Regulation GN No.446 provides for the procuring entities to use standard forms produced from the e-PPs for issuing different categories of

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<sup>110</sup> Ibid s. 354(1)(2)(3)(4)(5)

<sup>111</sup> Ibid s.363(1)(2)(3)

certifications such as acceptance and quality certificates and verifying receipt of goods, performances of services or performance of works in accordance with the contract prior to the payment of invoices online vis a vis the contract management based on the workflow process configured for the specific procuring entity.<sup>112</sup> In Tanzania, it is difficult to employ all of the mentioned processes electronically as the infrastructure of e-PPS is not covered throughout the country. This attitude paves the way for the manual operation be entertained.

Another legal weakness is that the current law has not categorically addressed the issues of cross-border tendering as nowhere it has been mentioned. This is a serious drawback of the law as it is well known that e-tendering is a world-wide phenomenon which attracts any supplier living anywhere and interested to register as required by the law and tender. As it may be recalled, it has been stated above that among the advantageous of e-tendering is to overcome the problem of geographical barrier between suppliers who are based on different locations.

## **2.15 Conclusion**

It has been reviewed in this chapter that development of e-procurement in Tanzania is associated with legal gaps which affect efficiency and smooth operation of e-procurement including lack of a regulatory body for software and lack of uniformity in application of software which hitches security and operational costs. Others are lack of not achieving the essential principles responsible in procurement processes like accountability and consistency. Regarding the insights on the position of

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<sup>112</sup> Ibid s.365(1)(2)(3)

electronic tendering, it has been revealed that electronic tendering in Tanzania is accompanied by legal gaps that affect smooth operation of e-tendering as a component of e-procurement. These include recognition of formation of evaluation committee in an e-tendering that causes unnecessary additional operation cost; and the criterion of the lowest price bidder during evaluation of tender online distress the quality of goods, works and services offered by suppliers.

**CHAPTER THREE**  
**INTERNATIONAL AND REGIONAL LEGAL INSTRUMENTS**  
**GOVERNING E-PROCUREMENT**

**3.1 Introduction**

Unlike the preceding chapter that offered an overview of procurement and emergence of electronic procurement, this chapter discusses the impact of international and regional legal instruments on e-procurement. The objective is to answer the question how have the international and regional legal instruments influenced e-procurement in Tanzania? Consequently, it is important to discuss some significant elements of such legal instruments such as defining legal instrument, international and regional legal instruments before linking them to how and what the role of such instruments to Tanzania is.

**3.2 Defining Legal Instruments, International and Regional Instruments**

**3.2.1 Legal Instruments**

A Legal Instrument refers to written documents or agreements that are legally enforceable and safeguarding their associated legal rights, obligations and duties.<sup>113</sup>

Examples of legal instruments are contracts, deeds and statutes passed by competent legislatures such as deed, bond, municipal law or international law. The legal instrument is categorized into international and regional instruments as follows;

**3.2.2 The International Instrument**

This is a written instrument arising between two or more sovereigns or independent

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<sup>113</sup> Instrument, Wex Definition, Cornell University, Law School, US (accessed from <https://www.law.cornell.edu>) on 01.05.2023

public entities such as states or international organizations formed with the intention to form rights and obligations between the parties and are governed by the international law and such instruments are designed as treaties, conventions, agreements, protocols, decisions or directives.<sup>114</sup> Examples of international legal instruments include the World Trade Organization on e-Procurement 2012 which provides regulations of e-procurement, the Universal Declaration of Human Rights 1948 which provides protection of women against harmful practices and General Agreement on Tariffs and Trade 1986 which establishes the basis for free trade and systematic reduction of customs duties, just to mention a few.

The designed treaties or agreements may be bilateral, plurilateral or multilateral. Bilateral treaties are international agreements between two countries expressing mutual obligations and undertaking such exchange of diplomats, recognition of borders, military assistance, treatment of nationals, extradition of criminals and aviation and navigation.<sup>115</sup> Plurilateral treaties are agreements made by groups of more than two nations regularly within a distinct geographical region or a language or other historical relations and commonly limited to specific matters such as military assistance, commerce and trade.<sup>116</sup>

Multilateral treaties are contracts between and among large groups of nations with common purpose. Commonly multilateral treaties are used to convene the existence of an organization or specific subject topic such as the Berne Convention on

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<sup>114</sup>Matons, J.G., A Review of International Legal Instruments, Facilitation of Transport and Trade in Africa, 2<sup>nd</sup>Ed, SSATP, Washington DC, USA 2014 at p. 1

<sup>115</sup>Aisenberg, M.A., The Role of a Framework of Legal Instruments in Establishment of Effective International Regional Cyber Information Sharing, Considerations for Founders and Organizers, the Mitre Technical Report 2012 at p. 23

<sup>116</sup>Ibid

Copyright become part of the law of the land after ratification.<sup>117</sup> Under International law, a treaty is legally binding agreement between states that have ratified the amendment and agreement reached at review conferences, summits or meeting of the state's parties that are politically but not legally binding.<sup>118</sup>

Normally, there is no prescribed form or procedure for concluding treaties. They may be drafted between heads of states or government departments where as the most key element in conclusion of a treaty are the signalling of the states` consent which is done by signature, an exchange of instruments and ratification.<sup>119</sup>The countries that do not sign and ratify a treaty may not be bound by its provisions and also a treaty may be terminated or suspended as per requirement of its provisions or by the consent of parties.<sup>120</sup>

Complexity comes on termination of multilateral treaties in which the termination can be done by unanimously. That means, all the parties may terminate the treaty in whole or in part and a party specifically affected by the breach may suspend the agreement between itself and defaulting state. Any party may suspend the entire agreement or part of it in case there has had material breach of the treaty which will fundamentally change the position of every part of its obligations under the treaty. This concept of fundamental change circumstance is known as the concept of *rebus sic stantibus* in Latin which means, things standing accordingly to imply under a

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<sup>117</sup> Ibid

<sup>118</sup> International Agreements – Law and Policy (accessed from <https://www.phe.gov> on 05.05.2023)

<sup>119</sup> Shaw, M., International and Municipal Laws, Britannica (accessed from <https://www.britannica.com/topic/international-law/international-law-and-municipal-law> on 06.05.2023)

<sup>120</sup> Ibid



fundamental change of circumstances a party may withdraw from or terminate the treaty in question.<sup>121</sup>

### **3.2.3 Regional Instrument**

This is a written legal document with legally enforceable agreements and secures their associated legal rights, obligations and duties like contracts, deeds and statutes passed by competent legislatures but this instrument is restricted to states in a particular region of the world<sup>122</sup> and framework is reflected in regional values and offers a more specific framework with local realities. Examples of regional instruments are the African Union, African Charter on the Rights and Welfare of the Child, Organization of American States or East African Community Treaty. In the East Africa Community Treaty, there is East African Community Customer Service Charter which is a charter for commitment to deliver high standard service to customers and stakeholders of the East African Community.

### **3.2.4 Elements of the Legal Instruments**

There are different ways on how nations adopt the legal instruments. The following are varieties of instruments comprising legal instrument;

- (i) By providing operational guidance for the conduct of the entity`s activities

This may be done in terms of providing rules or concept of operations and the statement of purpose of that legal instrument including management on the general

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<sup>121</sup> Ibid

<sup>122</sup> Regional Human Rights Instruments, Icelandic Human Rights Centre (accessed <https://www.humanrights.is> on 06.05.2023)

legal framework of a nation or institutional environment.<sup>123</sup>

(ii) Through financial models and operation of the entity

For instance, Tanzania, Kenya and Uganda are supported by the World Bank through policy analysis, grants and credits with focus on infrastructure and development of private sectors. During commission of those grants or credits, the World Bank stretches certain directives which are to be adhered to. For example, the financial model and operation of the entity needs adherence to certain operations. In this case, they may be in relation to adherence to the principles of e-procurement framework. Contrary to which the finance will not be concluded. This kind of altitude is where the financier like the World Bank influences some countries especially the developing countries to adopt e-procurement.<sup>124</sup>

(iii) characterisation is essential as it defines things like roles, responsibilities and relationship among participants as treaty partners, donor recipients or contracting parties; legitimization of the entity from external communities by utilising recognized legal instruments such as treaties, diplomatic letters and Memoranda of Understanding (MOU) and specifying governance element for the entity that is detailing of essential operating rules and any source authority like law, regulations; entity-specific governance instruments like Articles, Charters, by laws and management models including concept of operations and operating rules.<sup>125</sup>

Apart from development of sphere of international and regional instrument, there is also important requirement of application of the municipal law.

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<sup>123</sup>Aisenberg, M. Role of a Framework of Legal Instruments in Establishment of Effective International Regional Cyber Information Sharing, Consideration for Founders and Organizaers, The Mitre Corporation Virginia, 2012 Ibid pp.13-14

<sup>124</sup> Ibid

<sup>125</sup> Ibid

### **3.3 Municipal Law**

According to Black's Law Dictionary, municipal law is defined as the laws and ordinances that are in force inside a city, municipality, district and other local organizations.<sup>126</sup> Therefore, municipal law is the body of rules and regulations applicable to a particular county, state or independent political entity. It is sovereign state's domestic, national or local law encompassing all laws that are enacted at the state, provincial, territorial, regional and local levels.<sup>127</sup>

### **3.4 Significance and Types of Municipal Laws**

The intention of municipal law is to regulate municipal management, operations and legal standing in terms of operations, procedures, responsibilities and functions. It covers the functions performed by organizations like audit committees or other specialized committees including the procedure on how to elect the mayor and management of the financial matters in the municipality.<sup>128</sup> The laws applicable in domestic monarch are categorized into public and private laws. Public Law consist of constitutional law which deal with core or supreme law of the state, administrative law which deals with the structure, authority and duties of the administrative organs while the criminal law describes the offences and sanctions associated.

The Private laws encompass the community specific individual's conduct including the relationship within the same community are governed and regulated by this area of law. For example, family law, marriage Law, divorce law and property law. The general rule of the municipal law in the international realm is that a state that violates

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<sup>126</sup> Black, H. C., Black's Law Dictionary, Revised 4 Ed. St. Paul MINN., West Publishing Co. 1968 at p.1169

<sup>127</sup> Kumar, M., Municipal Law: Meaning and Types (accessed from <https://www.tutorialspoint.com> on 06.05.2023)

<sup>128</sup> Ibid

the international law provision cannot defend itself by the domestic legal system as provided by Art. 27 of the Vienna Convention on the law of Treaties 1969 as said:

*“ a state may not use the facts that its consent to be bound by a treaty was expressed in violation of a provision of its internal law regarding competence to conclude as evidence that the treaty is invalid.”*

Likewise, the same may not use the provisions of its failure to carry out an international agreement as per Art. 46(1) of the Treaty.

### **3.5 Relationship between International Law and Municipal Laws**

In order to understand the relationship that exists between international laws and municipal laws, there are must be answers to questions on how international law principles become part of domestic laws and what happens if the rules conflict with each other. Reaction of Patna Law College on the relationship between international and municipal law has solved the matter as derived theories of dualism and monism to explain the relationship between them.

According to Patna Law College, the differences between the two are believed to be the sources of law, its objects and subject matter. The international law derives from collective will of states. Its objectives are the states themselves and its subject matter is relations between the states whilst the domestic law derives from the will of the sovereign state. Its subjects are individuals within the state and its subject matter is the relations of individuals with each other and with the government.<sup>129</sup>

According to the dualist theory, international laws and municipal laws exist with a wide difference between their functioning. The dualist approach maintains that

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<sup>129</sup> Patna Law College, Ibid pp. 4-7

international laws cannot interfere with municipal laws as rules of international law are not incorporated in the municipal laws whereas the monist approach favours the unitary concept of law where the state derives its laws from superior source of law and a law that contradicts with the international law stands invalid. The dualist theory stresses that the rules of systems of international law and the municipal law exist separately and cannot imply to have an effect on or overrule the other. In other words, rules and principles of international law cannot operate directly in domestic laws and must be incorporated into domestic laws before they can affect individual rights and obligations.

The monist theory, the champions of the theory disagrees from dualist theory as they favour a unitary concept of law whereas states derive its laws from a superior source of law and a law that contradicts with international law stands invalid. To the monist theory, international law is incorporated in the domestic legal system and it does not need a specific law to necessitate its inclusion. The researcher concurs with dualist theory because the process of furnishing international law which follows set procedures of signature, ratification and entry into force and registration helps to eliminate irrelevant rights and obligations and thus the state remains with laws only required by the community. According to the Patna Law College, the theories associated with the application of international laws within municipal scope are categorized into;

### **3.6.1 Specific Adoption Theory**

This theory explains that no rules of international law by its own force can claim to be applied by municipal courts unless they have gone through the process of

transformation and specifically being adopted by the municipal court and available systems. The rules of international laws are part of national laws only if they have been specifically adopted.

### **3.6.2 Delegation Theory**

This theory lays down delegation right to each state constitution by the rules of international law called constitutional rules of international treaties to allow each state to decide or determine for itself as to how and when the provisions of international treaties are to come into force and in what manner they are to be implemented into state law.

### **3.6.3 Transformation Theory**

This theory requires the provisions of treaties that make international law must be amended to fit the local socio-cultural set-up which means the terms of the treaties may be incorporated into the municipal law through amendment or member state legislatures to give effect to the treaty in the context of their respective municipalities.<sup>130</sup>

## **3.7 Procedure to Adoption of Instruments**

In order to adopt a certain legal instrument, there should be a process to apply for use, adoption or potential transposition in national jurisdictions, treaties, conventions and charters which in a well-established procedure of signature, ratification and entry into force and registration as per Art. 102 of the United Nations Charter;

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<sup>130</sup> Kumar, M., Ibid

identification and localization of instruments and to fulfil the enforceability issues which include the ranking of legal norms, whether treaties and other international instruments are enforced whether a treaty automatically becomes domestic transposing legislation should be done as required by the Vienna Convention on the Law of Treaties, 1969.<sup>131</sup>

### **3.8 Influence of International and Regional Instruments Influenced e-Procurement**

Following the emergence of e-procurement, some international organizations have formed and codified international and regional legal instruments relevant to e-procurement. Some of those international organizations include the members of World Trade Organizations (WTO) who have agreed to formulate the World Trade Organization on E-Procurement 2012, Commission on International Trade Law on Public Procurement created the UNCITRAL Model Law on Public Procurement 2011; member of United Nations (UN) launched its e-Procurement Initiative in 2004.

The World Bank endorsed the new World Bank's Procurement Framework which came in action in July 2016 and the European Union as regional instrument formulated an outstanding example of the regional communities that formed the Public Procurement Directives of European Union 2014. These international legal instruments like the treaties involved in making e-procurement framework and set e-procurement standards that facilitate the procurement processes in the international

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<sup>131</sup> Building Understanding of the Variety of International Instruments, OECD iLibrary (accessed from <https://www.oecd-ilibrary.org> on 02.05.2023)

organizations.<sup>132</sup>

### **3.9 Role of International Instruments on e-Procurement**

There are different common instruments contributing in promoting e-procurement established by international organizations as follows;

#### **3.9.1 The World Trade Organization on e-Procurement 2012**

This instrument has been established by the World Trade Organization (WTO) that reviewed its agreement on government procurement and came up with the Agreement on Government Procurement and WTO related to legal instruments in the following ways;

One, the instrument recognized the use of electronic means for procurement.<sup>133</sup>

Likewise, the Agreement provided the definition of electronic auction as follows:

Electronic auction means an iterative procedure that involves the use of electronic means for suppliers of either new prices or new values for quantifiable non-price elements of the tender linked to the evaluation criteria or both resulting in a ranking or re-ranking of the tenders.<sup>134</sup>

Two, the WTO Agreement under Art.14 (3)(a)(b) provided for the principles to be adopted in leading procurement by electronic means by a procuring entity to abide by. These include:

- (a) the procuring body must guarantee that information technology systems and software are used in the procurement, that information is accessible for

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<sup>132</sup>Njwayo, J. A., *Regulation of Electronic Procurement Framework in International Organizations*, Journal of Legal Studies and Research 2021 Vol.7 Issue 2 at pp. 88-98

<sup>133</sup> Preamble

<sup>134</sup> Art. 1(f).



authentication and encryption, and that these systems and software are interoperable with other widely available information technology systems and software.

- (b) Without ignoring the determination of the time of receipt and the prevention of unauthorised access, the procuring entity shall maintain mechanisms that ensure the integrity of requests for participation and tenders.

Three, the Agreement provides for the technical requirements and tender qualifications as follows;

“Procuring body is not allowed to develop, implement, or use a technical specification or suggest a conformity assessment method with the intention of posing unnecessary obstacles”.<sup>135</sup> While in tender documentation, the WTO Agreement states that,“ a procuring entity shall make available to suppliers tender documents including all information essential to permit suppliers to make and submit responsive tenders”.<sup>136</sup>

Other contributions of WTO Instrument on e-procurement are stated as follows;

(a) the necessity for the procuring entity to conduct the procurement via electronic means, authentication and encryption specifications, or the electronic submission of information;

(b) when a procuring body conducts an electronic auction, the regulations, identification of the tender components, and performance of the auction's evaluation

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<sup>135</sup> Ibid Art. X (1).

<sup>136</sup> Ibid Art. X (7)

criteria; and

(c) any additional terms or conditions, such as payment terms or restrictions on how tenders must be filed (whether on paper or electronically), including any deadlines for the delivery of goods or the provision of services.<sup>137</sup>

Again, the WTO Agreement warrants the reduction of time of tendering for a procuring entity to range below 40 days under the following situations:

- (a) The notice of intended procurement is issued by the electronic means
- (b) The tender documentation is made accessible by the electronic means from the date of the publishing the notice of the intended procurement
- (c) The procurement entity accepts tenders by the electronic means.<sup>138</sup>

The additional role of the WTO Agreement on e-procurement is the application of automatic evaluation methods by procurement entities. This refers to the electronic auction as stated;

“Where a procuring entity performs a procurement using an electronic auction, each participant shall commence the electronic auction with the automatic evaluation method, including the mathematical formula based on the evaluation criteria set out in the tender documentation and use it in the automatic ranking or re-ranking during the auction. The results of initial evaluation of the elements of tender where the contract is to be awarded on the basis of the most advantageous tender and other relevant information

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<sup>137</sup> Ibid Art. IX (7) (d) (e) (g) (h).

<sup>138</sup> Ibid Art. 5(a) (b) (c).

related to the conduct of the auction”.<sup>139</sup>

The above discussion acts as proof of the role of the World Trade Organization Revised Agreement on Government Procurement 2012 to influence and recognize e-procurement

### **3.9.2 The UNCITRAL Model Law on Public Procurement 2011**

Historically, the idea of contribution of Model Law into procurement came as the result of General Assembly Resolution 66/95 of 9 December 2011 which came in force in 2014 as a way of recalling its resolutions 49/54 of 9 December 1994, which had recommended the use of the United Nations Commission on International Trade Model Law on procurement of goods, construction, and services to constitute a significant percentage of expenditure in most states.<sup>140</sup> Then, in 1994 Model Law, established the procedures for attaining competition, transparency, fairness, economy, and efficiency in the procurement process as an international benchmark for procurement reform.<sup>141</sup>

Again, in 2004, the Commission arranged that the 1994 Model Law should be modernized to reflect new practices that are the use of electronic communication in the public procurement. This came from the experience acquired from the use of that Model Law, as a foundation for regulation reform which did not transform the principles and main procedures from the 1994 text.<sup>142</sup> Contribution of the

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<sup>139</sup> Ibid Art. XIV.

<sup>140</sup> The UNCITRAL Law on Public Procurement 2011, General Assembly resolution 66/95 of 9 December 2011, United Nations, Vienna, Australia at p.1.

<sup>141</sup> Ibid

<sup>142</sup> Ibid

UNCITRAL Model Law on Public Procurement 2011 extended further to the requirements to abide by anyone who employs an electronic reverse action.

According to Art.31 (1)(a)(b)(c)(2) of the UNCITRAL Model Law on Public Procurement 2011 a procuring entity may be allowed to participate in electronic reverse action if shall fulfil the following requirements;

- (a) to create a thorough justification of the procurement's topic matter.
- (b) existence of a competitive market of suppliers or contractors is required anticipated to participate in the electronic reverse action; and that there will be a guaranteed effective competition criterion to be used by the procuring entity in determining the successful submission that is quantifiable and expressed in monetary terms. Moreover, a procuring entity may use a second-stage competition in conjunction with the award of a procurement contract and an electronic reverse auction as a step before the award of the contract.

Likewise, the UNCITRAL Model Law pointed out that the electronic reverse action is acknowledged as a standard-alone means of procurement<sup>143</sup>. Equally, UNCTRAL Model Law stipulates that the procurement regulation must aid the procuring body in assessing the circumstances that may call for the examination and/or evaluation of the opening bids, and the pre-auction determination of bidder qualifications.

Additionally, the UNCITRAL Model Law sets requirements for the media and means of publishing the invitation to the auction, including lists of references for the reasons why initial bids are rejected and effective access by suppliers and contractors

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<sup>143</sup> Ibid Art. 53.

located abroad.<sup>144</sup>

The computerised reverse action is regarded by the UNCTRAL Model Law as coming before the awarding of the procurement contract. In this regard, it mandates that the procuring entity notifies suppliers or contractors when asking for their participation in the procurement proceedings when an electronic auction is used as a phase before award of the procurement contract in a procurement method or in a framework agreement procedure with second-stage competition. Additionally, the procuring body must inform suppliers and contractors of the auction's details, including the mathematical formula used in the auction's evaluation process and how to access the auction.<sup>145</sup>

Additionally, before the electronic reverse auction takes place, the procuring entity must send invitations to the auction to all suppliers and contractors who are still involved in the process, specifying the registration deadline, the date and time of the opening auction, requirements for bidder identification at the opening of the auction, criteria for the closing of the auction, and other guidelines for how the auction will be conducted.<sup>146</sup> Additionally, each invitation to the auction must include the results of the evaluation pertaining to the supplier or contractor to whom the invitation is addressed in the event that the original bids were evaluated.<sup>147</sup>

Another contribution of Model Law is about the governing registration for the electronic reverse auction and the timing of the auction's holding must be agreed

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<sup>144</sup> Ibid

<sup>145</sup> Art. 54 (1) (a)(b)

<sup>146</sup> Ibid Art. 54 (2)(a)(b)(c)(d)

<sup>147</sup> Ibid Art. 54 (3)

upon after registration confirmation, and each listed supplier or contractor must receive timely notice of the electronic reverse auction.<sup>148</sup>

The procuring body may cancel the auction if there are no enough suppliers or contractors signed up for the electronic reverse auction because there is insufficient effective competition, but the cancellation must be announced to each supplier or contractor who has signed up while taking into account the reasonable requirements of the procuring body, there must be enough time between the issuance of the invitation to the electronic reverse auction and the auction for suppliers or contractors to prepare.<sup>149</sup>

Again, the Model Law has narrated the requirement during the reverse action by pointing out the following; when an electronic reverse auction is used to award a contract for procurement, the criterion to be considered must be the lowest price or the most advantageous bid as the base. It is also prohibited to reveal the bidder's identity during or after the auction, and any operator of the auction system who acts on behalf of the procuring entity must abide by the rules governing the auction.

<sup>150</sup>Likewise, the issues of prerequisites after the electronic reverse action has been described that, the choices that the procuring organisation must consider if the winner turns out to be unqualified or if its bids are unresponsive or rejected abnormally after the electronic reverse auction has ended. If the offer is determined to be responsive and the supplier or contractor submitting it is determined to be

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<sup>148</sup> Art. 55(1)

<sup>149</sup> Ibid Art. 55(1)(2)

<sup>150</sup> Ibid Art. 56(1)(2)(3)(4)(5)(6)

qualified, it must be the next lowest bid at the auction's conclusion.<sup>151</sup> Thus, with the above analysis of how provisions of laws of UNCITRAL Model Law of 2011 played a part, it is clear that the UNCITRAL Law on Public Procurement 2011 has shaped and improved procurement in general and specifically on e-procurement.

### **3.9.3 The World Bank e-Procurement Framework**

The World Bank is one of international financial institutions that launched e-procurement framework which consists of a web-based programme in order to combine e-commerce, procurement workflow, and document management with the intention to achieve with the proposed e-procurement solution for in order to abide by the promised transparency, increased compliance efforts, and improved institutional memory.<sup>152</sup>

The main aim of the framework was to reform and promote tailored procurement approaches that emphasize the high-quality and value for money for public spending which is a revolution from manual process to an electronic solution for selecting consulting services as part of the modernization agenda.<sup>153</sup> Additionally, the World Bank aimed at examining risks of the project through procurement strategies for development, value for money style in determining the procurement related complaints and contract management for the procurement project with high value and also high-risk.

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<sup>151</sup> Ibid Art. 57(1)(2)(3)

<sup>152</sup> Klemow, L et al., *The World Bank e-Procurement for the Selection of Consultants: Challenges and Lessons Learned*, Journal of Public Procurement 2004 Vol. 4 Issue 3 at pp. 319-339 (accessed from <https://www.researchgate.net> on 23.12.2020).

<sup>153</sup> Procurement for Projects and Programs-World Bank Group (accessed from <https://www.worldbank.org> on 23.12.2020).

Thus, adoption of e-procurement to the World Bank meant to encourage and build expertise, capacity, and share relevant experience in using e-procurement data, including measuring public performance. That is the case because the World Bank believes that e-procurement raises performance, improves projections, and promotes governance. In that regard, in 2015, the World Bank issued a new policy promoting e-Government procurement and role for the World Bank in Europe and Asian countries.<sup>154</sup> Again in 2016, to track the adoption of e-procurement, the World Bank released a collection of procurement indicators in order to help countries to understand better modernization and ensure compliance with e-procurement.<sup>155</sup>

In the course of strengthening the performance of e-procurement effectively, the World Bank created two online tools. These were the 2016 Rapid e-Procurement Toolkit and the online course on e-procurement which was providing their consumers a quick useful information and profit from the use of e-procurement.<sup>156</sup> Also, in same year 2016, the World Bank introduced the current procurement process, which offers a contemporary collection of tools and techniques like Alternative Procurement Arrangements (APA) and the brand-new Systematic Tracking of Exchanges in Procurement (STEP), which guarantees faster delivery with value for money, monitoring and assessment of framework, to improve transparency and future contract award reporting.<sup>157</sup>

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<sup>154</sup> E-Procurement Forum (accessed from <https://pubdocs.worldbank.org> on 23.12.2020).

<sup>155</sup> Public Procurement Indicators September 2016 (accessed from <https://eprocurementtoolkit.org> on 23.12.2020).

<sup>156</sup> The World Bank e-Procurement Tools (accessed from <https://wbnf.procurementinet.org> on 23.12.2020).

<sup>157</sup> Procurement for Development-World Bank (accessed from [www.worldbank.org](http://www.worldbank.org) on 23.12.2020).



Likewise, the World Bank uses operational function and country engagement as the two major principles that the World Bank's Governance Procurement.<sup>158</sup> Operational function offers fiduciary oversight and supports project grounding and execution to ensure proper property design and use to promote development in client nations and provide the best value for the money.<sup>159</sup>

The World Bank's country engagement process supports governments to improve their public procurement, including laws and technological infrastructure like electronic government procurement, by providing technical knowledge and knowledge unique to their own country. As a result, the World Bank has developed a foundation for improving data disclosure and cutting-edge data analytics to enhance the execution and monitoring of projects carried out in accordance with e-procurement adoption criteria. Subsequently, the World Bank played a big role in adding valuable contribution which aimed at promoting smooth operation of e-procurement globally.

### **3.10 Role of Regional Instrument in Promoting e-Procurement**

The European Union law sets out minimum harmonized public procurement rules which are organized the way institutions purchase goods, works and services online through the directive called the Public Procurement Directives of European Union 2014. The Public Procurement Directives of European Union 2014 is a regional legal instrument formed to regulate countries forming European Union and in the EU member states, these directives serve as the national legislation governing public

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<sup>158</sup> Ibid

<sup>159</sup> Ibid

procurement.

The first European Union's Public Procurement Directives were launched in 2014. At the same time, the European nations adopted a trio of directives that set the EU's legal foundation for procurement. These included the 2014 Concession Contracts Directive (Directive 2014/23/EU), the 2014 Public Procurement Directive (Directive 2014/24/EC), and the 2014 Directive on the purchase of goods and services by organisations involved in the water, electricity, transportation, and postal service sectors.

### **3.10.1 The Concession Contracts Directive (Directive 2014/23/EU)**

This directive resulted from two of the commission`s interpretative communications, 2008/C91/02 of April 2012 on the application of the community law on public procurement and concessions to establish public-private partnerships, and 2000/C/121/02 of April 2000 on concessions under the community law. The primary innovation of the new European framework for public procurement, which stipulates the fundamental principles of equal treatment, non-discrimination, and transparency, led to the creation of this regulation.<sup>160</sup> The difference between contracting authorities and contracting entities, where the former recognised public law organisations governed by public law, such as state, regional, or municipal authorities, is the basis for the subjective application of the directive.<sup>161</sup> On the later, the bodies pursue the activities trained by contracting entities.<sup>162</sup>

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<sup>160</sup>Cuatrecasas, G.P., *Directive 2014/23/EU, 2014/24/EU and 2014/25/EU of the European Parliament and of the Council, of February 26, New Public Procurement Directives*, Legal Flash/Public Law Journal, 2014 Vol.L94. No. 1 Art.3 (accessed from www.cuatrecasas.com 23.11.2020).

<sup>161</sup> Ibid Art. 6

<sup>162</sup> Ibid Art. 7

Concerning the award procedure, this is about the modernisation of e-procurement which is founded on the principle of freedom of choice and is designed with the assumption that the concession contract must be electronically available.<sup>163</sup> The main goal of the procedure is to set the selection and qualitative assessment of candidates and the award criteria; to increase the speed, efficiency and transparency of concession award processes as well as to simplify the publication of concessions.<sup>164</sup>

Additional objective is to embrace modification of contracts at the termination while monitoring and reporting of the procedure to the respective bodies tracking the activities.<sup>165</sup> The essence of this directive was the agreement of the European Member States concluded in to the European Parliament and the Council of the European Union as stated below:

Electronic means the information and communication to shorten the publication of concessions and increases the efficiency, speed and transparency of concessions award processes. They might become the standard means of communications and information exchange in the concession award process as they boost the options of economic operators to take part in concession award procedures across the internal market.<sup>166</sup>

### **3.10.2 The Public Procurement Directive (Directive 2014/24/EU)**

The second public procurement directive which is commonly known as the Public Procurement Directive (Directive 2014/24/EU), came to repeal the directive

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<sup>163</sup> Ibid Art. 34

<sup>164</sup> Cuatrecasas, G.P., Ibid P.2

<sup>165</sup> Articles 43, 44 and 45.

<sup>166</sup> Agreement No. 74 of Directive 2014/23/EU, Official Journal of European Union 2014 Vol. L94 N0.1 (accessed from <https://www.eur-lex.europa.eu> on 23. 11.2020).

2004/18/EU and form two key variations. One variation was to change the current directive into a new generous award procedure known as novelty partnership and the second was the rules of the performance on contracts.

The contracting authority must specify the requirement for an innovative product, service, or work in a contract notice in order to participate in the innovation partnership or award process. It is not possible to make this identification by buying products, services, or works that are already on the market. With the exception of the final tender, which should improve the content, i.e., the award procedure and the contract performance rules, the framework specifies the minimal requirements that must be met by all tenderers. The contracting authority will also negotiate with the initial and all subsequent tenderers submitted.

While the rules on the performance of the contract provided the environments for subcontracting and contract modification in the case of the award procedure which is an open procedure. The directive anticipates a competitive procedure with reasonable concession. According to Cuatrecasas, the modifications may be done where the original procurement documents call for the original contractor to perform extra works and other services. The same applies if the contracting authority decides to change the contractor for reasons other than cost, technological difficulty, or to avoid duplication of effort. The modification is allowable if it is necessary to make a change due to conditions, but an alert authority could not foresee this.

Also, the modification does not alter the complete nature of the contract and in case there is a rise in price, that increase must not be higher than 50% of the original

contract<sup>167</sup>. In addition, the Directive 2014/24/EU identifies a new technique and combined procurement, electronic catalogues and electronic auctions provided as per Articles 33, 35 and 36 of the Directive 2014/24/EU which originates from the agreement of EU Member States as stated below:

Electronic means the information and communication that shortens the publication of contracts and increases the efficiency and transparency of procurement processes. They should develop the standard means of procurement procedures in order to enhance the economic operators to take part in procurement procedures across the internal market. That being the purpose, electronic communication, means the communication by electronic means at all stages of the procedure with the transmission of request for participation and in particular the transmission of tenders (electronic submission) shall be mandatory. Neither, Member States shall not be indebted by contracting authorities to carry out electronic processing of the tenders nor mandate electronic evaluation or automatic processing.<sup>168</sup>

### **3.10.3 Public Procurement on Utilities Directive (Directive 2014/25/EU)**

Following the repeal of Directive 2004/17/EC, the Public Procurement on Utilities Directive (Directive 2014/25/EU) set the guidelines for contracting entities' procurement practises for contracts, design competitions, and service contracts. The contracting entities are public activities or contracting authorities that can be linked to one of the activities listed in Articles 8 to 14 of Directive 2014/25/EU, which

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<sup>167</sup> Ibid

<sup>168</sup> Agreement No.52 of the Directive 2014/24/EU, Official Journal of European Union 2014 Vol. L94 N0.65 (accessed from eur-lex.europa.eu on 23. 11.2020).

includes the extraction of oil, gas, and coal as well as the exploration or extraction of other solid fuels. These activities also include gas and heat, electricity, water, transportation services, ports and airports, and postal services. However, in addition to the debate above, the EU Member States also developed Agreements Nos. 63 and 64 to add to the directive, as shown below:

Agreement 63 stipulates as follows:

Electronic means of information and communication shorten the publication of contracts, increase the efficiency, and transparency of procurement processes. They ought to become the standard means of procurement procedures in order to enhance the economic operators to take part in procurement procedures across the internal market. For that purpose, transmission of notices in electronic form, electronic availability and fully electronic communication, should be adhered to in all stages of the procedure, including the transmission of requests for participation and in particular, the transmission of tenders (electronic submission) shall be made mandatory. It is also mandatory for the contracting entities to carry out neither the electronic process of tenders neither to mandates electronic evaluation nor automatic process. In addition, no elements of the public procurement process after the award of the contract should be covered by the obligation to use electronic means of neither communications nor initial communication within the contracting entity.<sup>169</sup>

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<sup>169</sup>Official Journal of e-European Union 2014 Vol L.94 No. 253 (accessed from <https://www.eur-lex.europa.eu> on 23.11.2020)

In case of Agreement 64, it entails as follows:

Contracting entities should use electronic means of communications which are non-discriminatory, generally available and interoperable with ICT products in all-purposeto use and do not restrict economic operators' access to the procurement procedure. The use of such means of communications should take accessibility into due account. No obligation to use neither electronic means that require specialized tools nor file formats that are not generally available or communication concerned could be handled using specialized office equipment. The contracting entity should not accommodate to involve the use of electronic means of communication in the submission process in cases that must be listed fully.<sup>170</sup>

In short, the Public Procurement Directives of European Union 2014 has three sub-directives. The first one is the concession contracts directive (Directive 2014/23/EU) that aim to formulate the rule that drives the basic principle of free administration, equal treatment, non-discrimination and transparency by the public authorities and the bodies tracing the activities done by contracting entities ine-procurement and also, the concession contract to be affected electronically.

The second one is the Public Procurement Directive (Directive 2014/24/EU) that intended to regulate the award process known as innovation partnership and the existence of contracts performance rules. The third one is the Utilities Directive (Directive 2014/25/EU) which founded the rules for the procedures of procurement

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<sup>170</sup> Ibid

by contracting entities with elements of contracts, design contests and service contracts for persons engaging in e-procurement.

### **3.11 Role of Tanzania on Instruments Regulating e-Procurement**

Before venturing into the role played by Tanzania on instruments regulating e-procurement, it is important to note that Tanzania is a dualist system as international laws and International instruments necessitate enabling legislation in order to apply domestic rights and liabilities actionable in the domestic law.<sup>171</sup> Also, international treaty provisions do not take precedence over national laws. Therefore, as of late, Tanzania has not executed or ratified any international or regional instrument regulating e-procurement despite developing domestic frameworks to regulate its procurement system.

For example, the amendment of the Public Procurement Act 2011 through Public Procurement (Amendment Act) 2016 (Act No. 5 of 2016) was meant to recognize e-procurement. Enactment of the Electronic Transactions Act 2015 (Act No. 13 of 2015) which provided for all data messages in electronic format to have legal effect, lawful and enforceable and acknowledgement of electronic contracts which were made by a way of changing its internal laws whereby the terms were ‘in electronic form’. The essence of the amendment of the Law of Contract Act 2002 [Cap 345RE 2002] was made to create conducive environment for online transactions that facilitate the social interactions between Tanzanians and other nationals.

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<sup>171</sup> Ford, J., *Unable or Willing? Case Studies on Domestic Implementation of the ICC Statute in Selected African Countries*, Institute for Security Studies, Monograph No. 141, 2008



### **3.12 Conclusion**

This chapter has examined the legal implications of international and regional instruments on e-procurement and used the role the World Trade Organization on E-Procurement 2012, the UNCITRAL Model Law on Public Procurement 2011; United Nations (UN) e-Procurement Initiative in 2014 and the World Bank's Procurement Framework to influence on e-procurement globally. However, through above discussion as exposed by the consulted literatures and legal authorities, It has been noted that Tanzania has not ratified any international or regional instrument to regulate e- procurement, instead established her domestic laws such as the amendment of the Public Procurement Act 2011 and the Public Procurement (Amendment Act) 2016 (Act No. 5 of 2016) which meant to recognize e-procurement.

## **CHAPTER FOUR**

### **LEGAL AND REGULATORY DEVELOPMENT STRATEGIES OF E- PROCUREMENT IN TANZANIA**

#### **4.1 Introduction**

Since the introduction of e-procurement in Tanzania, the Government has taken the regulatory development of e-procurement in order to create favourable environment for e-procurement dominance in the country. There have been different efforts in transforming the legal regime to accommodate the rapid development of ICT regime and e-procurement in particular. The old procurement laws that were designed to facilitate paper-based transactions are still in force though they are inefficient to address adequately new revolutions carried out by electronic transactions particularly e-procurement.

It is the interest of this study to discuss the development of e-procurement in the public sector in Tanzania and critically analyse relative issues such as legal and regulatory framework, regulatory development, some relevant components and regulatory challenges of e-procurement in Tanzania.

#### **4.2 Legal and Regulatory Framework on e-Procurement**

Before 2016, there had not been in place any proper law that guides and regulates e-procurement. However, in order to accommodate the rapid development of the ICT regime, the Public Procurement Act 2011 Cap 410 RE 2022 was amended by the amendment Act of 2016 which serves as an addendum to the Act of 2011 to recognise e-procurement. The legislative framework of Tanzania covers the sub-legal and specific acts which provide for rules and procedures of electronic public

procurement activities in Tanzania. Among important sub-legal acts include the following;<sup>172</sup>

- i. The Public Procurement Regulation 2013 (GN. 446 of 2013)
- ii. The Public Procurement (Amendments) Regulations 2016 (GN.333 OF 2016)
- iii. The Law Reform (Fatal Accidents and Miscellaneous Provisions) Act Cap 310 RE 2002
- iv. The Law Reform (Fatal Accidents and Miscellaneous Provisions) (Judicial Review Procedure and Fees) Rules 2014
- v. The Public Procurement Appeals Rules 2014.

In Tanzania, public procurement law applies to the public sector which means any ministry, department or agency of the government, corporate or statutory body or authority established by government, state owned companies and local government authorities in the form of town, municipal and city councils.<sup>173</sup>

### **4.3 Legal and Regulatory Development on e-Procurement**

In an effort to achieve the convergence of information and communication technologies, Government of Tanzania developed the following:

Firstly, it launched the National Information and Communication Technologies Policy 2003, which was later revised in 2016 with the vision of making Tanzania

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<sup>172</sup> Transparent Public Procurement Rating (accessed from [www.tpp-rating.org](http://www.tpp-rating.org) on 27.05.2023)

<sup>173</sup> Breakthrough Attorneys, Regulatory and Compliance Law Update: Dispute Settlement Procedure in Public Procurement in Tanzania, 2010 accessed from <https://breakthroughattorney.co.tz> on 27.05.2023)

have economically, socially and culturally enriched people and come with ICT enabled knowledge society.<sup>174</sup> The overall mission of the national ICT policy was to transform Tanzania into an ICT enabled knowledge-based economy through the development, deployment and sustainable exploitation of ICT to benefit every citizen and business.<sup>175</sup> The overall objective was to speed up the socio-economic development with potentials in order to transform Tanzania into ICT driven middle-income economy and society.<sup>176</sup>

In recognizing the impact of ICT, the Ministry of Finance has deployed several ICT systems for effective and efficient delivery such as ICT guidelines for security to save information systems assets like personnel data, hardware and software. Also, guidance was issued to handle the third-party access to organizational resources without compromising the organizational security aimed at providing framework for selecting, implementing and managing ICT security services in terms of guiding the organization on how to manage ICT assets and obtaining comprehensive security service.<sup>177</sup>

Secondly, the availability of resources like advent of the National ICT Policy 2016 and the National ICT Broadband Backbone influenced usage of ICT such as e-procurement and e-Government for socio-economic development. The advent of ICT in Tanzania realized Tanzania Development Vision 2015 where the promotion of ICTs is considered to be a major driving force for the economic sector as stated

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<sup>174</sup> Vision of National Information and Communications Technology Policy 2016 at p. 15

<sup>175</sup> Ibid

<sup>176</sup> Ibid

<sup>177</sup> Ministry of Finance, ICT Security Guidelines 2012.

below:

ICTs should be connected in the sector of the economy to benefit all social groups with view of enabling the meeting of basic needs of people, increasing productivity and promoting competitiveness.<sup>178</sup>

Thirdly, Tanzania established an independent regulatory body called Tanzania Communication Regulatory Authority (TCRA) fully liberalizing the communication market and implementing a technology neutral converged licencing framework to simplify licencing regime in 2005. Likewise, Tanzania endorsed the National ICT Infrastructure Development Program 2007, which aimed at connecting Tanzanians at all levels. The program comprised of the National ICT backbone, Educational and Research Network (ERNet), Government Communications Network (GovNet) and e-Government.

Also, Tanzania made amendment of the Evidence Act 1967 which was done through the written laws (Miscellaneous Amendments) Act No. 15 of 2007 to incorporate revolution and its impact on the laws and prevailing procedures. The amended Evidence Act 2007 (Act No. 15 of 2007) made evidence obtained from undercover relevant and admissible<sup>179</sup> Similarly, in 2015, the government of Tanzania established the electronic Transactions Act 2015 to accommodate electronic transaction in the country<sup>180</sup> and Cybercrime Act 2015<sup>181</sup> to criminalise offences related to computer systems and ICTs, to provide for investigation, collection and use of electronic evidence.

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<sup>178</sup>Strategies for the Realization of Tanzania Development Vision 2025, Planning Commission, Tanzania at p. 21.

<sup>179</sup>S. 40A

<sup>180</sup>Act No. 13 of 2015

<sup>181</sup>Act No. 14 of 2015

Another development was that Tanzania acknowledged electronic contracts and made changes to its internal laws. The terms "or in electronic form" were inserted into Section 10 of the Principal Law of Law of Contract Act 2002 [Cap 345 R. E2002] to make the following changes:

All agreements are contracts if they are made by the free consent of the parties, parties are competent to contract, if lawful considered; lawful object and are not stated void: provided that nothing shall neither affect any law in force nor be repealed. Moreover, any contract is required to be made in writing or in electronic form in existence of witnesses or any law relating to the registration of documents.

The words "in electronic form" were added after the word "writing" in paragraph (a) of S. 25 of the same Principal Act, and the words "or electronic form" were added after the word "writing" in paragraph (c). In essence, the amendment of the Law of Contract Act 2002 [Cap 345RE 2002] was made to create conducive environment for online transactions that facilitate the social interactions between Tanzanians and other nationals as far as there is the adoption of internet done in regard of globalization and the progress of science and technology.

Equally, Tanzania recognises electronic contracts through S.21 (1)(2) of the Electronic Transaction Act 2015 as stated hereunder:

For escaping doubt, a contract may be designed electronically unless otherwise agreed by the parties and where an electronic record is used in the formation of a contract that shall not be denied validity or enforceability on the ground that an electronic record used for that purpose.

In the same way, Tanzania made the authorization of the current legal and regulatory framework of public procurement which allowed application of e-procurement unlike the previous Act, which is the Public Procurement Act 2004 and its regulations of 2005 which did not allow e-procurement application. As it may be recalled, Tanzania made amendment of its procurement Act 2011 to allow e-procurement to be applied.

Moreover, in 2012, Tanzania migrated from terrestrial analogue to digital broadcasting; hence it became the first country in eastern and southern Africa to board on the implementation of International Telecommunication Union (ITU) goal.<sup>182</sup> This step enabled Tanzania to enjoy the information capacity, data security and communication quality. Again, Tanzania made the construction of submarine cables that provided high capacity optic fibre. This fibre linked Tanzania to the rest of the world and hence influenced external buyers to use e-procurement through the portal.

Additional development was to use universities to create awareness, literacy and expertise to the community at large<sup>183</sup>. Those who acquired knowledge, literacy and expertise were able to practise online businesses like e-procurement. The universities had several influences. For example, University of Dar (UDSM) created ICT Infrastructure, awareness, literacy and expertise by approving ICT Policy and ICT Master Plan 1995 including a number of workshops, seminars, public lectures and

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<sup>182</sup> National Information and Communications Technology Policy 2016 p. 3.

<sup>183</sup> Lwoga, E.T et al, The Role of Universities in Creating ICT awareness, Literacy and Expertise: Experience from Tanzanian Public Universities, A Paper Presented at the International ICT Conference, Kampala, Uganda from 5<sup>th</sup>-8<sup>th</sup> September, 2004 at pp. 1-2 (accessed from <https://www.researchgate.net> 05.02.2019).

conferences conducted to publicize ICT and ICT expertise by offering computer science degree.

Sokoine University of Agriculture (SUA) established ICT Infrastructure, ICT Policy and a computer centre which conducted an ICT course to all degree programs with the aim of creating ICT awareness and literacy through information literacy programs. The Open University of Tanzania established a corporate strategic plan, developed ICT Policy and a Master Plan for the teaching and learning process, including establishment of Bachelor of Science in ICT. Thus, administrations of various universities have included the use and the development of ICT infrastructure and services.<sup>184</sup>

#### **4.4 Tanzania National Electronic Procurement System (TANeps)**

Tanzania has a national electronic public procurement system known as Tanzania National e-Procurement System shortened as TANeps which is an e-portal created to facilitate public procurement processes in Tanzania. The tender portal is a web portal containing all information relating to public tenders.<sup>185</sup> In 2015-2016, Tanzania signed with vendor M/s European Dynamics for the development of integrated e-procurement which was later on branded as TANeps where all tenders are available and the interested parties can bid online.<sup>186</sup> TANeps is a web based collaborative system developed to facilitate public procurement processes in Tanzania with secure,

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<sup>184</sup>Bakar, J. K et al, Policies, Master Plans and a Rolling Strategic Plan in Effective Implementation of ICT Infrastructure and Services: Case Study of the Open University of Tanzania at p. 7 (accessed from <https://www.researchgate.net> on 05.02.2019).

<sup>185</sup> The Public Procurement Regulation of 2013 S.3



interactive dynamics environment for carrying out procurement of all categories.<sup>187</sup> The TANeps system incorporates functions such as e-tendering, e-payment and e-contract management. Therefore, the public procurement can be improved to ensure maximum transparency, efficiency procedures and competitive environment as TANeps has the potential to comply with best international practices and open contracting standards to allow open access to public procurement data.<sup>188</sup>

#### **4.5 National e-Procurement System of Tanzania (NeST)**

In 2022, Tanzania developed, hosted and started to operate the National e-Procurement System of Tanzania (NeST) in 2023 through Treasury Circular No. 2 of 2023/24 to assist procurement functions by way of ICT in expressions of e-registration, e-tendering, e-contract management, e-payment, e-catalogue and e-auction by procuring entities thus support processes of procuring goods, works, consultancy, non-consultancy and disposal of assets.<sup>189</sup> Other procurement functions include preparation and publication of annual procurement plans, pre-qualifications and initiation of tenders, evaluation, negotiation, and awarding contracts and make payments electronically.<sup>190</sup> This new system is user friendlier and phase out the TANeps which had a lot of challenges and aimed at addressing relevant issues.<sup>191</sup>

The framework establishes the mandatory for procuring entities to use e-procurement systems contrary to its current approach of using both paper based and

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<sup>187</sup>Tanzania National e-Procurement System TANeps (accessed from <https://www.taneps.go.tz> on 27.05.2023)

<sup>188</sup>Tanzania-Country Commercial Guide, Selling to the Public Sector, International Trade Administration, US 2022 (accessed from <https://www.trade.gov> on 27.05.2023)

<sup>189</sup>NeST, Public Procurement Regulatory Authority (accessed from <https://www.ppra.go.tz> on 30.09.2023)

<sup>190</sup>NeST- National e-Procurement System of Tanzania (accessed from <https://nest.go.tz> on 30.09.2023)

<sup>191</sup>Hellen Nachilongo, 'Tanzania to shift to new e-procurement', The Citizen, Thursday, 02 March 2023

e-procurement systems. However, improvement of procurement system alone without reform the law, oversight functions and creation of risks management strategies would not be the right way of problem solving manner. Therefore, the need for all steps of amending the stated laws was meant to make legalize electronic transactions including the electronic procurement in Tanzania. The legal and regulatory framework in e-Procurement in Tanzania is to implement e-procurement in all stages of procurement, from planning to contract. This e-procurement system is implemented concurrently with traditional manual processes.<sup>192</sup>

#### **4.6 The General Supervision of Procurement in Tanzania**

##### **4.61 The Public Procurement Regulatory Authority**

The general supervision of procurement is under the PPRA, a regulator who has the legal authority to ensure the application of fair, competitive, transparent, non-discriminatory, and value for money as the procurement principle standards and authority for the settlement mechanism of complaints is under the Public Procurement Appeals Authority (PPAA).

PPRA is an autonomous body established under S.7 (1) of the Act. Its objectives include: ensuring principles enshrined in the Public Procurement Act 2011 are encountered; setting standards for procurement processes; monitoring compliance and building capacities for the procuring entities; advising the government and local administration authorities and legal bodies on procurement principles; and monitoring and reporting on the performance of public procurement as provided

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<sup>192</sup> The Public Procurement Regulations, 2013 GN No. 446 S.343(1)

under S. 8 of the Act. The function of PPRA is to advise on the desired improvement, organize and maintain publication of procurement data, run periodic inspection of the records and proceeding of the procuring entities, and monitor award and implementation of contracts as per S.9 of the Act.

According to S.9(j) and (m) of the Act, PPRA has also the responsibility of preparing, updating and issuing standard bidding documents of general goods, works, supplies, consultancy and non-consultancy services. Similarly, it determines, develops, introduces, maintains and updates the linked system which supports public procurement via information and communication technologies such e-procurement. In addition, it reviews procurement matters nationally and internationally. The emergence of PPRA has helped a lot in resolving different challenges encountered in procurement nationwide unlike before as evidence shows that PPRA acted as a facilitator of efficient procurement processes and availability of reliable data including publication of various articles through PPRA journal which create knowledge about the procurement field at large.

#### **4.6.2 Public Procurement Appeals Authority (PPAA)**

The Public Procurement Act 2011 establishes the Public Procurement Appeals Authority (PPAA).<sup>193</sup> This authority acts as the settlement mechanism of complaints in Tanzania. It has dispute resolution procedures in case of procuring entities or tenderers claims to suffer any loss or damage which results in a breach of duty imposed in respect of procurement proceedings and awards of contracts reviewed

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<sup>193</sup> The Public Procurement Act 2011 S.88(1)

and decided by the chief executive officer of a procuring entity and gives explanations for the decision that complaints or disputes should be submitted within 28 days since the tenderer's submission became aware of the situations giving rise to the complaints in accordance with sections S.96 and 97(2).

Any complaints which are not solved within the stipulated time are not supposed to be solved by the procurement officer as per S.60 (11) of the Act. Instead, they shall be referred to as the Appeals Authority within fourteen days from the date received the decision of the accounting officer or in case no verdict is issued after the expiry of the time under Regulation 106 or when the tenderer became aware of the circumstances to dispute as per S.97(3) of the Act. Any application for review shall be submitted in writing or electronically to the accounting officer of procuring organization and will be copied to the Public Procurement Regulatory Authority within 28 days since the tenderer became aware of the circumstances giving rise to the dispute or complaint as per Regulation 105.

The appeals authority shall upon receipt of dispute, give notice of complaint or dispute to the procurement officer to submit relevant documents and information related to the particular order. The appeal shall issue a written decision for complaints or dispute with a reason for decision and remedies within forty-five days. Equally, S. 101 of PPA 2011 requires a tenderer or procuring entity upset by decision of the Appeals Authority to challenge the decision within fourteen days of the date of delivery of such decision to the High Court in a way of judicial review. Judicial review is authoritative to the judges of Tanzania as any ordinary citizen may challenge an unfair action. The judicial review by means of prerogative orders like

certiorari, mandamus and prohibition can be deployed to trial the administrative action.

According to S. 17 of the Law Reform (Fatal Accidents and Miscellaneous Provisions) Act Cap 310 RE 2002 and S. 2 of the Judicature and Application of Laws Act [Cap 538R.E.2002] provides that the High Court has power to determine the cases of prerogative orders and it is mandatory to requirement to seek the leave of court before applying prerogative order as provided by the Rule (5)(1) of the Law Reform(Fatal Accidents and Miscellaneous Provision) (Judicial Review Procedure and Fees).Rules 2004 GN No.324 of 2014 provides that the application for permission to file application for judicial review must be filled not more than six days after the proceedings, act or omission intended to be challenged.

According to Rule 5(2) of the Law Reform (Fatal Accidents and Miscellaneous Provision) (Judicial Review Procedure and Fees) Rules 2004 GN No.324 of 2014, the application for the consent to file Judicial leave must be made under Chamber Summons supported by Affidavit and Statement and upon being granted a leave to apply prerogative orders. The next stage is to apply for prerogative orders which must be completed within 14 days after the leave and that application must be under Chamber Summons supported by the Affidavit as provided by Rule (8)(1) and Rule 8(a) of the Law Reform (Fatal Accidents and Miscellaneous Provision) (Judicial Review Procedure and Fees) Rules 2004 GN No.324 of 2014.

#### **4.7 Main Modules of e-Procurement**

The main modules which are used to implement e-procurement are the Centralized Registration System, Workflow Management System, e-tendering and e-purchasing,

e-auction, e-contract management system, e-payment system, Procurement Management Information System (PMIS), Handling Errors and Exceptions, and applications.<sup>194</sup>

#### **4.8 Registration of Users of e-Public Procurement**

The users must register in e-PPs in order to gain access to functional dashboards with the e-PPs' legal features as in accordance with S.345 (1) – (11) of the Public Regulations 2013. Also, users are required to maintain the privacy of all information related to their accounts, and they take responsibility for all actions involving the use of that information in e-PPs. This includes paying any costs associated with obtaining the proper signatures to be used in e-PPs, and the Authority is not liable for any improper handling, loss, or theft of those signatures.<sup>195</sup>

The system divides the users into groups according to their acceptability. For instance, the contracting parties, potential bidders, system administrators, auditors, the banks and financial institutions of the development partners, civil society groups, and other parties allowed by the PPRA. The proper users who seek to use e-PPs must include information like the confirmation that they have read and agree to the e-PPs' disclaimer and privacy policy, as well as the terms and conditions of the e-PPs that they plan to use. If a user provides inaccurate information or submits a fake document and it is discovered, the user account will be suspended or terminated and other legal actions will be taken as necessary<sup>196</sup>. When a reliable online verification

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<sup>194</sup>Ibid

<sup>195</sup> The Public Procurement Regulation 2013 S. 344 (1)(2)(3)(4)(5)(6)

<sup>196</sup>Ibid

process cannot be carried out, PPRA is in charge of the user credential validation processes that may call for the provision of original hard copies of the user's credentials.

Registration will be cancelled if any e-PPs terms and conditions are violated. Once the users' registration for e-PPs is complete, the users' credentials have been verified, the registration fee has been properly paid, and the users' presence has been verified by the governing board. The rule further stipulates that users may cancel their registration at any moment if there are no outstanding debts to any parties even when using e-PPs. Upon managing registration in any category, the user account shall be dispensed with a security dashboard comprising legal features to allow the use to accomplish their roles in e-PPs<sup>197</sup>.

#### **4.9 Relevant Components of e-Procurement in Tanzania**

Tanzania utilises a platform for procurement through e-tender advertising and e-notification of tender awards through Portal.<sup>198</sup>

Different components of e-procurement, such as e-contracts, e-signature, and e-payment are valid in Tanzania.

##### **4.9.1 Electronic Contract (e-Contract)**

This is a procedure used by parties who genuinely intend to engage into a contract and who have freely consented to do so through digital communication. Such an

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<sup>197</sup>Ibid

<sup>198</sup>Joel, J., `Assessment of the User Perception of e-Procurement in Public Organization`, A Case of TANESCO Iringa, Dissertation Submitted in Partial Fulfilments of the Requirements for Awards of Bachelor of Business Administration in Procurement and Logistics of Ruaha Catholic University, Iringa Tanzania 2018.

agreement is made via email or another electronic communication method, and if both parties are happy, it is signed and authorised using a digital signature<sup>199</sup>. There are instances where parties enter into agreements through the use of software with previously decided terms and conditions that are set up so that a user of the software must click the "I agree" button upon agreeing to the conditions.<sup>200</sup>

Law resolves mistakes in case they happen through certain established rules and equitable principles to be applied to help the contract be set aside as a result of the mistake in cases where there is a basic error made during contract formation by either one party or both contracting parties.<sup>201</sup> These equitable rules of mistakes in e-contract include things like to correct such error mainly in minor input error and right to withdrawal.<sup>202</sup>

According to Art.14 of UN Convention on the Use of Electronic Communications in Electronic Contracts 2005, the issues on equitable rules of mistake of data entry error or patent false in e-contact is provided as follows:

“where a natural person makes an input error in an electronic communication bartered with the computerized message system of another party and the computerized message system does not offer the party with an opportunity to correct the error or the party on whose acting on behalf of such person, has

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<sup>199</sup>Shah, N., *Electronic Contract/Agreements-A General Overview*, Imperial Journal of Interdisciplinary Research (IJIR)2016, Vol. 2 No.12at p. 223 (accessed from <https://www.onlinejournal.inon> 17.12.2018).

<sup>200</sup> Ibid.

<sup>201</sup>Josang, A et al., *Electronic Contract Administration-Legal and Security Issues, Literature Review and Industry Development*, Cooperative Research Centre for Construction Innovation, Icon.Net Pty Ltd, Australia, June 2016 Report No. 2005-025-A at p.16 (accessed from <https://www.construction.innovation.inf> on 18.12.2018).

<sup>202</sup>Fallah, M.R et al., *Mistakes in Electronic Contracts in Iranian Law and UN Convention on the Use of Electronic Communications in Electronic Contracts*, Journal of Politics and Law 2016 Vol. 9 No. 10 at pp. 92-93 (accessed from <https://www.researchgate.net> on 19.12.2018)



right to withdraw the portion of the electronic communication of the input error was made if:

- (a) The individual or the party on whose account the individual was acting, promptly notifies the other party of the error after becoming aware of it and admits to making a mistake in the electronic communication;
- (b) If any goods or services were received from the other party, they were not used by the person or the party on whose behalf they were acting, nor did they receive any substantial benefit or value from them.

In Tanzania, s.26 (2)(3)(4) of the Electronic Transactions Act 2015 provides for the procedure to deal with mistakes in e-contract;

26(2) - the contacts designed by the interaction of an interactive system shall offer an opportunity to correct an input made in an electronic communication substituted with the interactive system of another party”

26(3) – where a person makes an input error in an electronic communication bartered with the interactive system of another party and an interactive system does not provide the person with an opportunity to correct the error, that person has the right to withdraw the electronic communication in which the input error was made if the person-

- (a) informs other party of the error as soon as possible after having learned of the error and cancel the contract or cancel the input error;
- (b) takes reasonable steps by the other party to return the goods or services received as a result of error or to destroy goods or services or to cancel the input error; and

(c) has not used or received any material benefit or value from the goods or services or the input error from the other party.

26(4) - A person who has paid for goods or services under interactive system is eligible to refund such payment within third days upon cancellation of the transaction.

The basis of formation of electronic contracts is basically the same as traditional contracts<sup>203</sup>. In e-commerce, for instance, an offer to make an electronic contract is made electronically and communicated to the party for which it has been made electronically through the internet in a variety of ways, such as through an online advertisement, an email, or an offer made over the website of a supplier of goods.<sup>204</sup>

The agreement is also finalised when the offer or receives notification of approval.<sup>205</sup> The creation of an online offer, sharing that offer online, and communicating an acceptance are all components of the formation of electronic contracts.

Other factors include the date and location of the contract's formation, the parties' identities, the veracity of an electronic signature, the existence of the appropriate legal framework for the contract, and the court's authority to rule on disputes involving the contract's implementation.<sup>206</sup> An online offer by a seller who wishes to

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<sup>203</sup> Aljaber, M et al., *The legal Framework of Electronic Contracts in the Jordanian Legislation*, Global Journal of Politics and Law Research 2017 Vol. 5 No. 5 at pp. 46-62 (accessed from <https://www.researchgate.net> on 15.12.2018).

<sup>204</sup> Ndunguru, A.F., *Legal Challenges of the Formation of Electronic Contract in Tanzania: A Case of Tanzania-Japan Trade Exchange Relationship*, Business Educational Journal (BEJ) 2018, Vol. II No.1 at pp. 1-6 (accessed from <https://www.bej.cbe.ac.tz> on 12.12.2018).

<sup>205</sup> Erdle, M., 'On-Line Contracts: Electronic Creation of Effective Contracts', Technology Contracting (accessed from <https://www.dww.com> on 17.12.2018).

<sup>206</sup> Ndunguru, A.F. Ibra

engage into an agreement regarding certain legally binding terms serves as an example of this. The content or wording of an email can serve as an offer in a website page's offer, and anyone who takes it will be bound by the terms of the contract.<sup>207</sup> When and where an electronic offer is deemed to be successfully communicated for acceptance is the main challenge.<sup>208</sup>

Similarly, when an online offer is contractually accepted, the acceptance is considered to be complete once the communication hits the offeror's address and is accessible to the offer or addressee as provided in *Latec Finance Pty Ltd v Knight* [1969] 2NSWR, which is the standard norm that is a contract, is created when an offer is accepted.<sup>209</sup> This simply means that the key essential in formation of contract is the acceptance.

According to the United Nations Convention on the use of Electronic Communications in International Contracts (UNCUECIC) 2005, an online offer is full when it can be retrieved by the addressee once it gets there. When the information is familiar to the individual being addressed and can be retrieved and processed, communication of an offer is complete. The dispatcher's and receiver's places of business or a location with a closer connection to the primary business of the contract meant to be performed serve as the place of communication for online offers.<sup>210</sup>

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<sup>207</sup> Argy, P. et al, *Effective Formation of Contracts by Electronic Means*, Computer and Law (accessed from <https://www.austlii.edu> on 15.12.2018).

<sup>208</sup> Ndunguru. A. F, *Supra*.

<sup>209</sup> Hill, S.W.B., *Email Contracts-When is the Contract Formed?* Journal of Law, Information and Science [2001] Vol. 12 Issue No.1 (accessed from <https://www5.austlii.edu.au> on 17.08.2020).

<sup>210</sup> Art 10(2).

Online offers are typically approved after the purchaser submits their own offer in response to the invitation to submit an offer. Before acceptance, the offer is revocable at any moment. The buyer has the option to accept or reject the website's offer to engage into a contract with him and not reject the offer in online transactions.<sup>211</sup> An invitation to a treat is made by the retailer's email or website, and a customer makes an offer, which the offered must accept in order for a contract to be formed.<sup>212</sup> However, as to date, the law of Contract Cap 345 RE 2002 regulates both traditional paper based and electronic contracts. However, although there are developments of e-contract amendment made by Tanzania to accommodate e-contract, yet there are legal flaws associated with electronic contracts. For examples, there are problems of hacking, phishing, intellectual property theft, and delivery of faulty goods through ordering goods but receiving false delivery.<sup>213</sup>

#### **4.9.2 Electronic Signature (e-Signature)**

Electronic signature is defined differently by many scholars, writers and regulations. The definition of an electronic signature (e-signature) in the UNCITRAL Model Law on Electronic Signature (2001) is the data in electronic form that is logically attached to a data message and can be used to identify the signatory in relation to the data message and to direct the signatory's approval of the data message's information. Similar definition of e-signature is given referring to it as a method of signing contracts and other documents electronically without using a pen or paper into

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<sup>211</sup>Kitime, E., *Electronic Contracts in Tanzania Vis a Vis Electronic Transaction Act, No. 13 of 2015*, Law journal 2016 Vol. 7 Issue No. 1.

<sup>212</sup> Ibid

<sup>213</sup>Saha, T., Online Contracts: Legal Issues and Challenges Confronting the Indian Scenario, Legal Service India E-Journal of 2000-2023 (accessed from <https://www.legalserviceindia.com> on 26.04.2023)

businesses to save time and cost with the same legal validity and enforceability when executed in compliance with e-signature laws.<sup>214</sup> This study concurs with both definitions because both definitions have been concerned with the issues related to the signing contracts and documents electronically though in different words. There are some ways to form an electronic signature as provided by the United Nations Convention on the use of Electronic Communications in International Contracts of 2005:<sup>215</sup>

(i) Electronic Signature designed by typing a party's name and address

By including one's name and place of business at the end of an electronic document, parties intending to sign it electronically can bind themselves to its terms. This is one way that can be used to sign an electronic document. It is acceptable to indicate the identity of the person signing an electronic document and their intent to do so by including their name and address of business at the end of the document.

(ii) Electronic Signature by using digitized images of handwritten signature

The practise of adding hidden codes to signatures using digital biometric technology, also known as Private Identification Numbers, involves digitising handwritten pictures into signatures (PIN). The technique, in which a client signature is electronically assigned to a PIN as a password, is frequently used in the ATMS cards. When required to sign in the ATM, a person must input a password rather than their signature.

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<sup>214</sup>What is e-signature, Citrix Systems, Inc (accessed from <https://www.citrix.com> on 26.04.2022)

<sup>215</sup>Art. 9(3)(a)

(iii) Electronic Signature formed by using encrypted private keys

This technique is composed of a string of alphabetic and numeric characters that serve as private keys for decrypting encrypted communication. For instance, 5u64 could indicate Juma.

(iv) Electronic Signature by Signing "I agree Icon"

This approach is applicable to some shopping websites that have a box next to the advertised goods that says, "I agree." After selecting the goods, they want to purchase, the customer adds the necessary items to their online shopping cart and clicks the "I Agree" button to indicate their desire to sign the contract.

In Tanzania, electronic signature is mandated by the Electronic Transactions Act 2015 mandates electronic transaction authentication and offers a guarantee that the transaction was carried out by a real person and came from a real source and in general governs e-signature use in Tanzania. According to S.7 of the Electronic Transaction Act 2015, the requirement fulfilling electronic signature shall meet the following:

- (i) That the method used is to identify a person and specify the intention of that person in relation to the information communicated
- (ii) At the time of using the method, that method was reliable and suitable for the intended purposes for which the information was communicated.

The same legal framework provides for the conditions of an electronic signature which is secured if:

- (a) it is unique for the purpose to be used;
- (b) it can identify the person who signs the electronic communication;

- (c) it is created and affixed to the electronic communication by the signer;
- (d) it is under control of the person who signs; and
- (e) it is created and linked to the electronic communication which relates in a manner that any changes in the electronic communication would be discovered;
- (f) through providing a definition of an electronic signature, the data to the Electronic Transactions Act 2015 must be in electronic sound, symbol or process executed or adopted to identify a party, to indicate that the party has approval or intention in respect of the information contained in the electronic communication and which is attached to or logically associated with such electronic communication<sup>216</sup>.

Also, the Electronic Transactions Act 2015 provided that:

A contract may be formed electronically unless otherwise agreed by parties and where an electronic record is used in the formation of a contract that shall not be denied in terms of validity on the ground that an electronic record was used for that particular purpose<sup>217</sup>.

Moreover, the enactment of the Electronic Transaction Act 2015 has recognized the electronic signature that:

Where a regulation necessitates the signature of a person to be entered, that requirement shall be met by a secure signature made under this Act<sup>218</sup>.

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<sup>216</sup>S.3

<sup>217</sup> Ibid S. 21(1) (2).

<sup>218</sup> Ibid S. 6(1).

The law also stipulates that the method used to create such a signature must be able to identify a person, show his intention with regard to the specific information, and be trustworthy and appropriate for the purpose for which the information was conveyed. Therefore, anyone using an electronic signature should ensure that it is capable of disclosing identity or approval and that all requirements have been met before proceeding with the transaction.<sup>219</sup>

Critically, the law relating to e-signature in Tanzania does not fully cover the legal problem of e-signature. For instance, despite Tanzania recognizing electronic signature through the Electronic Transaction Act 2015, the practice has discovered that, the law offers plain information without providing a specific licencing authority for the e-signature to man electronic contract. This situation has created several inadequate solutions of electronic contract as legal frameworks are miserably deficient.

#### **4.9.3 Electronic Payment System (e-Payment)**

The electronic payment is a process of payment completed electronically over goods or services purchased online. The types of electronic payment include electronic checks, electronic credit card payments made online, electronic cash payments made online, and smart card-based electronic payment systems.<sup>220</sup> The requirements of payment systems include being secure, efficiency, and convenience in sense of easy

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<sup>219</sup> Victory Attorney's & Consultants, 'Legal Framework of Electronic Signature in Tanzania 2018' (accessed from [www.victoryattorneys.co.tz](http://www.victoryattorneys.co.tz) on 08.08.2020).

<sup>220</sup> Sumanjeet, S., *Emergence of Payment Systems in the Age of Electronic Commerce: The State of Art*, Global Journal of International Business Research 2009 Vol. 2 No. 2 (accessed from <https://www.globip.com> on 28.03.2021).



to make purchase online, controllable and traceable.<sup>221</sup>

In Tanzania, the regulation of e-payment is through the Payment System Act 2015 (Act No.4 of 2015), which, inter alia, explains the power to supervise the payment systems in terms of regulation of electronic payment instruments, regulation of electronic money, payment system service providers, validity and enforceability netting planning and clearance of payment instruments directives and related matters such as electronic and mobile money transfers.<sup>222</sup>

The main objective of the Act is to modernize the country's payment system to globally acceptable standards, reducing risks and growing convenience, affordability and appropriateness of the systems and the Act requires the financial and non-financial institutions to obtain specific license and consent of the Bank of Tanzania (BOT) prior to the services of payment.<sup>223</sup> The certifying and approval requirements by BOT are provided for by the Payment Systems (Licensing and Approval) Regulations 2015 and the Payment Systems (Electronic Money) Regulations 2015.

The Bank of Tanzania uses an electronic clearance system called the Tanzania Automated Clearing House Rule 2015 to facilitate clearing of inter-banking payment instruments and advanced national payment systems.<sup>224</sup> There are other regulations of e-payment such as the Electronic Transaction Act 2015, the Cybercrime Act 2015 (Act No.4 of 2015) and the Anti-Money Laundering Act 2006 (Act No.12 of

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<sup>221</sup> Ibid

<sup>222</sup> The Payment System Act 2015 (Act No.4 of 2015) S. 4(1)(a)-(h).

<sup>223</sup> Ibid S.5

<sup>224</sup> Magalla, A., *Development of Payment Systems in Tanzania: A Discussion on the Law Governing Electronic Cheques in Tanzania*, SSRN Electronical Journal 2018 at p.51 (accessed from <https://www.researchgate.net> on 28.03.2021).

2006). The key stakeholders in the electronic payment system industry are BOT as regulator, monetary authorities in Tanzania, banks and financial institutions, infrastructure providers such as communication companies and payment system providers.<sup>225</sup> However, despite the convenience of and secure of e-payment, there arise various risks such as operational disasters, cyber-attacks and fraud by the way of security questions must be answered before transaction but how can one confirm the genuine of maker is the question that needs answer. There is a need for an effective e-payment risk management framework.

#### **4.10 Regulatory Challenges of e-Procurement in Tanzania**

The strategies to adopt e-procurement are overwhelmed by some weaknesses as follows:

##### **4.10.1 Contradictory role of the Law Enforcement Mechanisms**

There are contradictory roles of some regulatory authorities. For instance, PPRA is indebted to ensure procurement entities compliance with public procurement like mandating to formulate criteria, indicators, guidelines and standard for the procuring entities. Similarly, PPRA is required to conduct training to procurement officials and the same training is among the criteria used for assessing PEs in compliance with the public procurement law. Again, the same PPRA is responsible for making procurement audit through periodic review and monitoring of PEs procurement activities and the training of PEs is a source of revenue for the PPRA. The multiple roles and absence of an oversight institution to monitor the PPRA performance raises

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<sup>225</sup>Kasanda, P and Marandu, M, Tanzania: 'The National Payment System', Clyde &Co 2016 (accessed from <https://www.mondaq.com> on 28.03.2021).

questions of conflict of interest.<sup>226</sup>

#### **4.10.2 Lack of e-Complaint Mechanism**

While Tanzania has engaged in e-procurement, yet in practice, there are some important procedures that are done manually. Its effect is inefficiency in the entire e-procurement handling system. For example, lack of e-complaint mechanism in PPAA.

According to S.88 of the PPA 2011, an independent Procurement Appeals Authority formed in third schedule under section 88 have jurisdiction to determine the procurement or disposal appeals. This Authority works manually and is not connected with e-state portal. To determine appeals, one needs to know how the tender was detailed, how evaluation was conducted versus the laws applied. For example, how can these provisions may work thoroughly if there are not connected to e-complaint mechanism? This means all rights of appeal and judicial review are both denied.

Additionally, law gives original and appellate jurisdiction over complaints against PEs where procurement or disposal of contract is in force. Also, Appeals Authority deals with appeals arising from administrative decisions made by the accounting officers. However, law does not give access for the general public to complain despite the fact that the public might be the victims of poor service delivery in case of PEs` non-compliance with the public procurement law.<sup>227</sup>

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<sup>226</sup>Mnyasenga, T and Ngatale, E.A, Ibid at p. 42

<sup>227</sup> Ibid

#### **4.10.3 Lack of the Comprehensive National Public Procurement Policy**

Tanzania has established the National ICT Policy 2016 without considering the national e-procurement policy. The national e-procurement policy might be used as a road-map for the development plans of the procurement including e-procurement. Such a gap has been attributed to, among reasons, the PEs non-compliance with the procurement law in Tanzania.<sup>228</sup> Consequently, this is the basis for the government and statutory bodies on matters related to e-procurement. In the Collins English Dictionary, policy means set of ideas or plans or basics for making decisions especially in politics, economics or business.<sup>229</sup> That means, a policy is important in setting the development plans and strategies that can encourage efficiency, value for money and discourage procurement abuses in e-procurement cycle. In other words, absence of the policy affects efficiency of the whole procurement processes.

#### **4.10.4 Non-alignment between Law of the Contract and the UN Convention**

The Tanzania Law of Contract 2002 Cap 345 RE 2002 regulations for contract communication does not align with the United Nations Convention on the Use of Electronic Communications in International Contracts. (2005) as follows:

S. 4 of Law of the Contract Cap 345 R.E 2002, the communication is complete;

- (1) The communication of a proposal is complete when it comes to the knowledge of the person to whom is made.
- (2) The communication of an acceptance is complete-

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<sup>228</sup> Ibid at pp 42-43

<sup>229</sup> Collins English Dictionary (accessed from [www.collinsdictionary.com](http://www.collinsdictionary.com) on 13.12.2020).

- (a) As against the proposer, when it is put in a course of transmission to him, so as to be out of the power of the acceptor
- (b) As against the acceptor, when it comes to knowledge of the proposer.

S.4 of the Law of the Contract is not similar to Art. 10 of the UN Convention that stipulates that electronic communication of offers and acceptances must be incomplete to the addressee's knowledge until it can be recovered as a whole message. This is because electronic communication is transmitted in segments that could be received as incomplete information, as it is stated:

The time of receipt of electronic communication is the time when is capable of being retrieved by the addressee at the electronic address designated by the addressee. The time of receipt of an electronic communication at another electronic address of the addressee is the time is becoming capable of being retrieved by the addressee and the addressee becomes aware that electronic communication has been sent to that address. An electronic communication is presumed to be capable of being retrieved by the addressee when it reaches the addressee`s address.<sup>230</sup>

Therefore, an important element in communication of the electronic offer and acceptance is where the whole message is retrieved. This is so because e-communication is transmitted in segments and may be delivered as an incomplete information as provided by Art.10 of UN Convention United Nations Convention on

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<sup>230</sup> Art 10(2)

the Use of Electronic Communications in International Contracts (2005).

#### **4.10.5 Lack of Provisions Governing Cross-Borders Issues**

The cross-border in procurement is a process when a consumer a product from a merchant who is located in another country where by customers and sellers are located in different countries with different policies.<sup>231</sup> One of point to consider in transacting the cross-border transaction is regulation especially things like the taxation and local government policies. In case of Tanzania, the Public Procurement Act 2011(Act No.7 of 2011) allows international competitive tendering.<sup>232</sup> However, the issues of cross border provisions on e-contract are not categorically addressed as there are no provisions into existing laws that pointed out which court has power to decide the matter of electronic contracts in event the parties engaged in electronic contracts are coming from different countries.

The landmark law is the Rome Convention on the Law Applicable to Contractual Obligations (Directive 80/934/EEC of 1980)<sup>233</sup> which guide how the parties engaged in the contract to choose which law to govern their contract. Furthermore, the level the applicable law to the contract has not chosen in accordance with Art. 3 and a severable part of the contract which has a closer connection to another country may, by exemption, be governed by the law of that country<sup>234</sup>. Tanzania lacks such provisions in both, the Contract Act 2000 and the Electronic Transactions Act 2015.

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<sup>231</sup>Mohsin, What is Cross-Border Trade? (Accessed from <https://cedcommerce.com> on 02.11.2023)

<sup>232</sup>S. 150

<sup>233</sup>Art.39 (1).

<sup>234</sup>Art.4 (1)

#### **4.11 Conclusion**

The chapter has analysed critically the efforts made by the government of Tanzania in developing regulations for e-procurement. Through discussion, it has been found out that, the Public Procurement Act 2011 CAP 410 RE 2022 and its subsidiary legislations (the Public Procurement Regulations, 2013) (GN No. 446), the Public Procurement (Amendments) Regulations 2016, the Law Reform (Fatal Accidents and Miscellaneous Provisions) Act Cap 310 RE 2002, the Law Reform (Fatal Accidents and Miscellaneous Provisions) Judicial Review Procedure and Fees) Rules 2014 and the Public Procurement Appeals Rules 2014 are mainly the laws applicable in conducting e-procurement in Tanzania. However, it has been revealed that, despite efforts to develop ICT regime (electronic transactions)

Also, the Public Procurement Regulatory Authority and the Public Procurement Appeals Authority to act as a watch dog in the activities performed by procuring entities and suppliers, Tanzania's legal frameworks are inadequate to regulate or promote modernisation in e-procurement business due to existence of several legal gaps in both legislations and component of e-procurements such as e-contract management, dispute settlement, e-signature and e-payments. This situation necessitates a need to reform the present regulations in order to have legal scene that recognises and protects welfares of e-procurement in Tanzania.

**CHAPTER FIVE**  
**LEGAL AND REGULATORY DEVELOPMENT OF E-PROCUREMENT IN**  
**KENYA AND UGANDA**

**5.1 Introduction**

The progress of e-procurement in many countries lacks a robust legal and regulatory framework to ensure its smooth operation. Therefore, it is crucial to examine the e-procurement experiences in Kenya and Uganda through a comparative analysis of their regulations with those of Tanzania. This analysis aims to provide valuable insights that can contribute to the development of a comprehensive legal framework for e-procurement in Tanzania.

This relative comparative survey was done by way of examining the raw data obtained from selected parameters of the study which included legal and regulatory development of public procurement, security protection in e-procurement, legality of electronic contracts, electronic signature and also, whether public procurement is a constitutional matter. The primary focus of this chapter was to address the legal and regulatory advancements in the field of e-procurement within the countries of Kenya, Uganda, and Tanzania. The core purpose of this chapter is to identify the most effective approaches that Tanzania can adopt by drawing insights from the experiences of Kenya and Uganda.

**5.2 Legal and Regulation of Public Procurement**

**5.2.1 Legal and Regulation of Procurement in Kenya**

Kenya's public procurement system can be traced as far back as 1970s when the public procurement was developed from a non-regulated plan to a well-organized



and governed by the law<sup>235</sup>. The first supplies manual was first outlined by the government procuring system in 1978, which was later supplemented by circulars released by the Treasury in the 1970s, 1980s, and 1990s. These circulars required the Director of Government Services to comply with the decisions made by different tender boards regarding bids and awards.<sup>236</sup> However, Kenya revised its public procurement system in 1999 and created a uniform public procurement arrangement for the public sector, doing away with the previous system's questionable dispute resolution processes, lack of transparency, and failure to provide the greatest possible value for money when making purchases.<sup>237</sup>

From 2001 to 2004, Kenya recruited the Public Procurement and Asset Disposal Bill that turned into the Act in 2005 and its regulations of 2006 became operative from 1<sup>st</sup> January 2007 across the Kenya's public sector entities.<sup>238</sup> Again in 2015, Kenya recruited the Public Procurement and Asset Disposal Bill that was turned into the Act in the same year and its regulations of 2020 became operational to replace those of 2005. Kenya has a number of legal and institutional frameworks for public procurement that govern public procurement procedures. These include the Public Procurement and Asset Disposal Act 2015, Art. 227 of Constitution, the Anti-Corruption and Economics Crimes Act (ACECA) 2003 (Act No. 3 of 2003), the

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<sup>235</sup>Oching, J and Muehle, M, 'Development and Reform of Kenyan Public Procurement System' Paper at pp. 1765-1771 (accessed from [www.ippa.org](http://www.ippa.org) on 25.02.2019).

<sup>236</sup>Gichio, B, 'Public Procurement in Kenya, Cash Cow for the corrupt or enabler for public service delivery?' Adili 2014 No. 145, Transparency International Kenya at p. 3 (accessed from <https://tikenya.org> on 25.02.2019).

<sup>237</sup>Ibid.

<sup>238</sup>Osir, E.O, *Role of E-procurement Adoption on Procurement System Performance in State Corporations in Kenya: A Case of Kenta Utalii College*, International Academic Journal of Procurement and Supply Management 2016 Vol. 2 No. 1 at p. 69 (accessed from <https://www.iajournals.org> on 31.05.2019).

Bribery Act 2016 (Act No. 47 of 2016), the Public Audit Act 2015(Act No.34 of 2015), the Public Finance Management Act 2015 (Act No.18 of 2012) and the Law of Contract Act 2002 Cap 23 R.E 2012 [2002].<sup>239</sup>

Kenya established bodies to assist the process of public procurement and assets disposal. These bodies comprise of the National Treasury and the Public Procurement Regulatory Authority. According to S.7 (b) of the Public and Asset Disposal of 2015, Kenya recognizes the role of the National Treasury in public procurement, to formulate, evaluate, promote and investigate on national and regional public procurement and asset disposal policy and standard; to develop policy guidelines for the efficient procurement supervision and discarding for the national executive; to design and propose an efficient procurement management system for the national and county governments to ensure transparent procurement and asset disposal; to provide technical assistance and the implementation or the operation of the public procurement and asset disposal; to manage and administer the scheme of service of the procurement and supply of chain management service cadre for the national government; to carry out universal research and promote e-procurement tactics and policies in the national government, county government, state corporations and other government agencies, and to enable affirmative action for the disadvantaged groups according to the constitution and involvement in the procurement process.

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<sup>239</sup>Kagume, J and Wamalwa, N., Presentation on Public Procurement in Kenya: Analysis of the Auditor General's Reports, Institute of Economic Affairs 2018 for launch on the study on Public Procurement in Kenya held on 29<sup>th</sup> of August at the Sarova Stanley Hotel, Nairobi (accessed from <http://www.ieakenya.or.ke> 28.02.2019).

On the Public Procurement Regulatory Authority, S.8 of the Kenya Public Procurement and Asset Disposal of 2015 is founding the Public Procurement Regulatory Authority which, inter alia, ensures the procurement procedures are complied with the Act; monitor the public procurement system and report on the overall function to the minister answerable for procurement for improvements as the Director General of Authority may consider advisable; and assist in implementation and operation of the public procurement as provided in S.9 of the Public and Asset Disposal of 2015 to: (i) provide advice and assistance to procuring entities; (ii) prepare and distribute manuals and standards documents to be used in connection with procurement by public entities; (iii) develop, promote and support the training and proficient development of persons involved in procurement; (iv) ensure that the procuring entities have procurement experts in their procurement units; and (v) issue written directions to public entities with reverence to procurement and to conduct procurement proceedings and dissemination of information on procurement.

### **5.2.2 Legal Framework and Regulation of Public Procurement in Uganda**

In the past of the 1990s, Uganda's public procurement arrangement was modelled after the British colonial system, whereas the contract was given by the Central Tender Board (CBT) and the procurement was centralised. Formally, there were various procurement committees run by the Government Central Purchasing Corporation, and another for the police and the military<sup>240</sup>. Due to the benefits of combined purchasing and central management provided by these arrangements, CBT

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<sup>240</sup>Agaba, E and Shipman, N, 'Public Procurement Reform in Developing Countries: The Uganda Experience', Chapter 16 Paper (accessed from <https://www.ippa.org> 19.02.2019)

was unable to keep up with activities and the ensuing procurement requirements because the existing procurement system could not provide value for money.<sup>241</sup>

Reforms started in 1997 with a Task Force aimed at, among other things, transparency and accountability, equal opportunity for all in the bidding process, integration of the public procurement system with public financial management framework and streamlined procurement process through the gradual adoption of electronic commerce.<sup>242</sup>

The suggestions made by the Uganda Country Procurement Assessment Team served as the cornerstone for procurement reforms. Abolishing the central tender boards, creating a policy and a regulatory body, and harmonising central and municipal government regulations were some of the main suggestions.<sup>243</sup> However, before there were sources of pressure on the government to review the performance of the public procurement system and to the general a restricting plan. One was the realisation by the government itself that the old system could not deal satisfactorily with the emerging demands on systems in terms of transaction numbers, expanding value of procurement budgets, scale and technical complexity of procurement activities and two donors exert pressure on the government to put in place the

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<sup>241</sup>Tumetegyereize, M, 'Public Procurement Reforms: Issues and Challenges: The Case of Uganda', Paper Presented at the CIPS Pan African Conference held at National Theatre, Ghana, 2013 at p. 7

<sup>242</sup>Uganda National Chamber of Chamber of Commerce and Industry, Challenges and Lessons Learned from Participation of the Private Sector in Procurement Reform in Uganda, presented at the High-Level Forum on Public Procurement Reforms in Africa: Sustaining Economic Development and Poverty Reduction through the Current Economic Crisis 16-17<sup>th</sup> November, 2009 Tunisia

<sup>243</sup>The Uganda Country Procurement Assessment Report (CPAR) Volume 2, Main Findings and Recommendations 2004 pp.12-43

appropriate remedies.<sup>244</sup>

The existence of strong pressure made to meet customer requirements, improved financial accountability, active methods to combat waste and corruption, and a rationalised procurement process through increased use of electronic commerce are some others.<sup>245</sup>

The Public Procurement and Disposal of Public Assets Act (2003) (Act No. 1 of 2003), the Public Procurement and Disposal of Public Assets Regulations (2003) (Statutory Instrument No. 6 of 2014), and the harmonisation of local government procurement into the national standards were all the outcomes of the implementation of the proposed reform. Additionally, Uganda established the Greening Uganda's Public Sector Procurement Policy to implement a uniform shift from the traditional approach to public procurement to support socioeconomic development and transformation, and encourages the use of the public sector procurement to promote Government's social, environment and economic objectives.<sup>246</sup>

### **5.2.3 Legal and Regulation of the Public Procurement in Tanzania**

Tanzania has gone through many regulatory frameworks to govern its public procurement role since her independence. For instance, there was the Public Procurement Act 2001 (Act No. 3 of 2001) which repealed the Exchequer and Audit Ordinance Cap 439 of 1961 followed by the purchasing procedure for goods and

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<sup>244</sup>Public Procurement Reform: Issues and Challenges: The Case of Uganda, World Trade Organization (accessed from <https://www.org> on 04.05.2023)

<sup>245</sup>Agaba, E and Shipman, Ibid at pp. 374-375

<sup>246</sup>United Nations Environment Programme, Policy Activity: Greening Uganda's Public Sector Procurement Policy Workshop held from 6-7 August 2018, Entebbe (accessed from <https://www.unep.org> 19.02.2019)

services outlined in the Financial Orders Part 111 (Stores Regulations) Fifth Edition, 1965 by the rules implemented in the Public Procurement Act of 2001, which replaced the Exchequer and Audit Ordinance of 1961.

In 1991, Tanzania published regulations for the Ministry of Works' procurement of works and services and the Ministry of Education and Culture had a distinct process. These responsibilities fell under the Integrated Roads Division of the Ministry of Works. The Central Medical Stores Department had its own legal structure based on the Medical Stores Tender Board Act of 1983(Act No. 13 of 1993). The Exchequer and Audit Ordinance 1961 and Financial Orders Part 111 (Stores Regulations) 5th Edition, 1965 (Repealed) were the two systems used by the Ministry of Defence and National Service; Tanzania People's Defence Force and the National Services used the National Security Act 1970 (Act No. 3 of 1970). Followed by adopting the Public Procurement Act 2001 (Act No. 3 of 2001), a new public procurement regulation, was adopted by the parliament in 2001 which is repealed and replaced by the Public Procurement Act 2011 (Act No. 7 of 2011) which updated the Public Procurement Act 2004 and required the Public Procurement Regulatory Authority (PPRA) to oversee the nation's procurement processes.

From the above discussion, it is clear that all countries that is Kenya, Uganda and Tanzania have made several attempts to regulate their procurement processes over the years.

The essence of development of regulations of procurement has been of consequential impact from legal and regulatory points of views similarly in all the three countries

that is Kenya, Uganda and Tanzania. For example, the previous regulations of all the countries had allied with the lack of adequate legal frameworks or lack of effective procurement principles that could help to minimize the risk of buying poorly quality products or services which are the core issues. All regulations from Kenya, Uganda and Tanzania promote improvement of regulation of public procurement and have shown intention to achieve the most advantageous combination of cost; quality and sustainability over the life cycle of procurement and avoid lack of transparency which is a major issue to lead into corruption and mismanagement of resources.<sup>247</sup>

According to the Kenya Public Procurement and Assets Disposal Act 2015, the importance of principles of procurement includes;

A person shall not be involved in any of corrupt, coercive, obstructive, collusive or fraudulent practices or conflicts of interest in procurement or asset disposal.<sup>248</sup>

Similarly, the Public Procurement and Disposal of Public Asset 2003 (Act No. 1 of 2003) establish the Public Procurement and Disposal of Public Asset Authority and to run the following objectives:

“Ensuring the use of fair, competitive, transparency, non-discriminatory, value for money for various procurement and disposal standards and practices; harmonising the central government, local government, and

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<sup>247</sup>Wojcik, E., Lack of Transparency, CEOPEDIA Management Online (accessed from <https://ceopedia.org> on 07.05.2023)

<sup>248</sup>S.66

statutory bodies' procurement and disposal policies, systems, and practises; setting standards for the public procurement and disposal systems; monitoring compliance of the procuring and disposing entities; and building procurement and disposal capacity".<sup>249</sup>

Equally, s. 8 of the Tanzania Public Procurement 2011 establishes the objectives of authority include ensuring the application of fair, competitive, transparent, non-discriminatory and value for money procurement standard and practices.

In dissimilarity with Tanzania, despite Kenya having the graceful institutional bodies for procurement and asset disposal, there are some functions that could have not been allocated to the public procurement authority to avoid duplication of works and conflict of interest. For instance, the duty to achieve and govern the scheme of service of the procurement entity and supply of chain management service cadre for the national government may be performed by the National Treasury and not the Public Procurement Authority as provided by S. of 9 (e) of the Act.

Conversely, Tanzania lacks procurement policy while Kenya has the National Public Procurement and Asset Disposal Policy 2020 which provide direction to all public entities and stakeholders in public procurement and disposal activities hence achieve value for money, fairness, competition, equity, quality, supplier diversity, transparency and accountability.<sup>250</sup> while Uganda established the National Public Sector Procurement Policy 2019 which provided the strategic direction for the

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<sup>249</sup> S. 5(1)

<sup>250</sup> Art. 13



procurement to implement a uniform shift from the traditional approach to public procurement to support socioeconomic development and transformation and facilitate public service delivery through a responsive, flexible, efficient and effective public sector procurement services.<sup>251</sup>

In short, Kenya and Uganda have procurement policy, but Tanzania does not have the procurement policy. Instead, Tanzania has a draft of the national public procurement policy of 2012 which is not yet approved so far. The national e-procurement policy is used as a road-map for the development plans of the procurement including e-procurement. Subsequently, this has been the basis for the government and statutory bodies on matters related to e-procurement.

### **5.3 Security Protection Issues in e-Procurement**

#### **5.3.1 Security Protection on e-Procurement in Kenya**

As of recent, Kenya has no specific law regulating security issues in e-procurement. However, Kenya has identified highest security issues including database breaches, social engineering, inside threats, continuous monitoring, poor identity and access management and response through the Kenya Cyber Security Report 2015 as provided by Ngugi's Dissertation.<sup>252</sup> In that regard Kenya also uses ISO 7498-2, the standard lists that inform on comprehensive security control measures which contain access control, authentication, data integrity, data confidentiality and non-repudiation as security measures may be through deterrence, prevention, detection

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<sup>251</sup> The National Public Sector Procurement Policy 2019, Ministry of Finance, Planning and Economic Development, Uganda at p. 5

<sup>252</sup> Ngugi, E.W., E-Commerce Security and Performance of SMEs in Nairobi, A Research Project Submitted in Partial Fulfilment of the Requirement for the Award of Degree of Master of Business Administration, School of Business, University of Nairobi 2016.

and reaction.<sup>253</sup>

Regarding the dispute arising between consumer and e-supplier, Kenya has established the competition authority and the competition tribunal which is empowered to control disputes arising between them.<sup>254</sup> Moreover, Kenya has passed various laws related to ICT including the Kenya Information and Communication Act Cap 411A (RE 2011) which penalises service providers for improperly interfering with communications and disclosing them.<sup>255</sup> The Act's Sections 83C and 83E give the commission the responsibility for electronic operations and the ability to grant licences for electronic certification services.

The Information and Communications (Consumer Protection) Regulation of 2010 Cap 265 was enacted in Kenya and covers a variety of the rights and obligations to suppliers, the protection of children from harmful content, and the prohibition of any licensee trying to monitor or disclose the content of any subscriber information transmitted through the licensed systems by listening, tapping, storing, or infringing in any other way.<sup>256</sup>

In Kenya, through the Kenya Information Act 2016 (Act No. 31 of 2016), guarantees citizens have the right to access information and protections when disclosing information of public interest<sup>257</sup>. Also, Kenya has the Computer and Cybercrimes

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<sup>253</sup> Ibid

<sup>254</sup> Ndanu, M. I., E-commerce in Kenya: The case for Consumer Protection; A Thesis Submitted in Partial Fulfilment of the Requirement for the Degree of Master of Laws (LLM), School of Law, University of Nairobi, 2016.

<sup>255</sup> S.31 (a) (b)(c).

<sup>256</sup> ss.5, 6, 9 and S.15 (1).

<sup>257</sup> S.3

Act 2018 (Act No.5 of 2018). To facilitate international collaboration in handling computer and cybercrime issues, this Act establishes offences relating to computer systems, detection, prohibition, prevention, response, investigation, and prosecution of computer and cyber security.

### **5.3.2 Security Protection on e-Procurement in Uganda**

The Republic of Uganda does not have a specific law that regulates security of data protection on e-procurement. Though, there is an inherent built in commonly available internet on things (IoT) devices and networks that control cyber security exposure in Uganda and practice an embedded technology to co-operate with internal or external states. IOT is embedded with technology such as sensors, software mechanical and digital machines and consumer objects like vehicle e.g. smart watches may be linked to internet to track GPS location.<sup>258</sup> IoT system is used across various economic sectors that include energy, construction, infrastructure, manufacturing, health, agriculture, defence, transport and consumer in the public sector.<sup>259</sup>

Also, the Republic of Uganda through the National Information Technology (NITA) has drafted the e-Government Interoperability Framework for the development of a Government Enterprise Architecture which started to be implemented between November, 2020 and September 2021 that is driven by a service Oriented Architecture model and interoperability standards developed for use as reference for

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<sup>258</sup>Gills, A.S., What is the Internet of Things, TechTarget August 2023 (accessed from <https://www.techtarget.com> on 25.08.2023)

<sup>259</sup>Matovu, D and Mutua, S, *State of Cybersecurity in Ugandan Perspective*, International Journal of Scientific & Engineering research 2019 Vol. 10 Issue 4 at Abstract (accessed from <https://www.researchgate.net> on 20.04.2022)

implementing a government system in Uganda.<sup>260</sup>

### 5.3.3 Security Protection on e-Procurement in Tanzania

Tanzania is afflicted by the prominent risks of e-procurement that include computer risks, unreliable internet services, confidential leakage hacking, software non-compatibility, legal liabilities, interpretation of laws and unethical practices which attract e-procurement to be in mistrust and insecurity to users.<sup>261</sup> However, Tanzania has established the Guidelines for Securities in Public Procurement for carrying out procurement activities in Tanzania through PPRA by virtue of power conferred by S.9(1)(f) of the Public Procurement Act (Cap 410) RE 2022.<sup>262</sup>

With regard to similarity analysis between Kenya, Uganda and Tanzania on security matters, Kenya uses ISO 7498-2 as International Security standard while Uganda uses internet on things (IoT) to control cyber-security exposure and the newly drafted e-Government Information Architecture-Standards and Technical Guidelines which are not specific for e-procurement. This situation demolishes trust of the parties who uses the system while Tanzania has formed local Guidelines for Securities in Public Procurement.<sup>263</sup>

Conversely, Tanzania is secured by local guidelines for securities in public procurement while Kenya ratified from International standard and Uganda lacks both

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<sup>260</sup>Kanagwa, B et al, Towards an Interoperability e-Government Framework for Uganda, Makerere University, Kampala Uganda 2018 at p.26 (accessed from <https://eudi.eu>) on 04.06.2023)

<sup>261</sup>Makoba, N., et al, *E-Procurement Risks and Mitigation: The Case for Tanzania Construction Companies*, International Journal of Construction and Management 2017 Volume 6 Issue No.4 (accessed from <http://article.sapub.org> on 07.05.2023)

<sup>262</sup>Guidelines for Securities in Public Procurement, Version No. PPRA/GL/SEC/02/2022

<sup>263</sup>Voss, W.G., Security and Privacy Implication of e-Procurement in the TTIP (accessed from <https://www.cidob.org> on 08.05.2023)

local and ISO. In short, lack of legal and regulatory framework of security in procurement forms a clear problem exposed as the risks of legal framework on e-procurement in the public sector.

#### **5.4 Legality of Electronic Contracts**

Electronic Contract is one of components of e-procurement. It is concerned with an agreement made online that creates a shared responsibility between two parties and is enforceable by the law or legally binding with the advantage of low transaction cost, easy to use and time efficient as there is no need to meet in person.<sup>264</sup>

##### **5.4.1 Electronic Contracts in Kenya**

Kenya regulates matters concerning electronic contracts by using the Kenya Information and Communication (Amendment) Act 2009(Act No. 1 of 2009) and the Kenya Information and Communication Act Cap 411A that makes electronic contracts legally recognized.<sup>265</sup> In Kenya, electronic contract is eligible if agreed by the parties, there is an offer and acceptance of an offer articulated by means of electronic messages and where electronic message is used in the formation of a contract, the contract shall not be denied of validity or enforceability.<sup>266</sup>

##### **5.4.2 Electronic Contracts in Uganda**

Uganda's Electronic Contracts are regulated by the Statutory Instruments Supplement No. 23 which forms the Electronic Transactions Regulations 2013 No.

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<sup>264</sup>Evisort, Glossary Electronic Contract, 49 Stevenson Street, California (accessed from <https://www.evisort.com> on 09.05.2023)

<sup>265</sup>Lunani, S.M., *E-Commerce and Consumer Rights: Applicability of Consumer Protection Laws in Online Transactions in East Africa*, International Journal of Scientific Research and Innovative Technology, 2017 Vol. 4 No. 1 at p. 95 (accessed from <https://www.ijrsrit.com> on 19.04.2019).

<sup>266</sup>S.S.S.835J

42, whereas S.12 of the Electronic Transaction Regulation 2013 point out the electronic contract as follows:

Where a contract is concluded electronically, a service provider shall plan that an order is placed by the recipient of service, provided that the recipient is in a clear, logical and unambiguous [...].<sup>267</sup>

### **5.4.3 Electronic Contracts in Tanzania**

Tanzania acknowledges electronic contract following amendment that involved the insertion of the terms "or in electronic form" were inserted into Section 10 of the Principal Law of Law of Contract Act 2002 [Cap 345 R. E2002] to make the following changes:

All agreements are contracts if they are made by the free consent of the parties, parties are competent to contract, if lawfully considered; lawful object and are not stated void: provided that nothing shall neither affect any law in force nor repealed. Moreover, any contract is required to be in writing or in electronic form in existence of witnesses or any law relating to the registration of documents.

In essence, the amendment of the Law of Contract Act 2002 [Cap 345RE 2002] was made to create conducive environment for online transactions that facilitate the social interactions between Tanzanians and other nationals as far as there is adoption of internet done in regard of globalization and the progress of science and technology.

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<sup>267</sup>S. S.21(1)(2)

Additionally, Tanzania recognises electronic contract through the Electronic Transaction Act 2015 as stated;

For escaping of doubt, a contract may be designed electronically unless otherwise agreed by the parties and where an electronic record is used in the formation of a contract that shall not be denied validity or enforceability on the ground that an electronic record used for that purpose.<sup>268</sup>

Coming to the point of comparative analysis among Kenya, Uganda and Tanzania countries, all countries have considered and taken care the application of electronic contract in their legal and regulatory frameworks related to the electronic transactions including e-procurement. This simply enhances adequate legal frameworks to be broadly efficient and effective.

### **5.5 Constitutional Recognition of Procurement**

According to Merriam-Webster, constitution refers to the basic principles and laws of a nation, state or social group that determine the powers and duties of government and guarantee certain rights to the people in it.<sup>269</sup> Constitution serves multiple purposes from empowering public institutions and authorises and regulates the exercise of public power and expresses the shared values, identity or purpose.<sup>270</sup> Constitution should not provide any laws and regulations for every aspect of functioning society and therefore, it is impossible to predict how society will look in the future and what its specific circumstances and needs will be. Therefore, the

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<sup>268</sup>S.21(1)(2)

<sup>269</sup>Merriam-Webster, Constitution Definition & Meaning at (<http://www.merriam-webster.com> 09.25.2023)

<sup>270</sup>Hedling, N., The Fundamentals of a Constitution, International Institute for Democracy and Electoral Assistance (idea), 2017 at pp. 1-8 (accessed from <https://www.idea.int> on 09.05.2023)

constitution offers legislation and regulations at most efficient to delivery.<sup>271</sup>

### **5.5.1 Recognition of Procurement in the Constitution of Kenya**

The constitution of Kenya recognizes public procurement as it requires that procurement shall be of fair, unbiased, transparent, competitive and profitable.<sup>272</sup>

The Kenyan Constitution considers consumer rights as well as cares for ODR in the country's technological growth.<sup>273</sup> Also, through the Information and Communication (Dispute Resolution) Regulation 2010 and the Kenya Information and Communication Act 1998 (Act No.2 of 1988), it allows a consumer to file a complaint with the Communication Authority of Kenya regarding a business-to-consumer (B2C) e-commerce dispute.<sup>274</sup>

### **5.5.2 Recognition of Procurement in the Constitution of Uganda**

The constitution of Uganda has not enshrined the matters related to public procurement. However, Uganda allows the use of electronic records and communication in respect of information or document under the Amendment Act (Section 45) by the Public Procurement and Disposal Authority, an entity or a bidder during a procurement or disposal process.<sup>275</sup>

### **5.5.3 Recognition of Procurement in Constitution of Tanzania**

United Republic of Tanzania has not provided for any article regulating procurement in her constitution. Instead, public procurement is regulated by the Public

<sup>271</sup> Ibid

<sup>272</sup> Art. 227

<sup>273</sup> Ibid Art. 11, 46 and 159 (c)

<sup>274</sup> Gachie, A.J., 'An Evaluation of the Need for Regulation of Online Dispute Resolution (ODR) in Kenya', A Thesis Submitted in Partial Fulfilment of the Requirements for Award of the Degree of Master of Laws (LLM), University of Nairobi, Kenya, 2016.

<sup>275</sup> Aboto, J. M., Procurement Law in Uganda, ALP Advocates, East Africa, 2021



Procurement Act 201, its regulation of 2013 and amendments of 2016. Likewise, Tanzania has a national electronic public procurement system (TANePs) which is an e-portal to facilitate procurement processes in Tanzania which is replaced by the National e-Procurement System of Tanzania from July 2023 which is recently updated by NeST that is National electronic Procurement System of Tanzania.

Comparatively, it is the Republic of Kenya alone which has enshrined procurement recognition in her constitution unlike Tanzania and Uganda. The researcher regards this as a serious overlook of the ground-norms contemplation. It should be reminded that procurement influences national and local institutions and affects the nation's economic growth. The amount of spending it represents are among the hallmarks of public procurement of the country and ensures all items and services properly acquired in procurement processes can proceed efficiently and successfully.<sup>276</sup> Therefore, recognition of procurement in the constitution could help to prioritize the e-procurement function nationally. With all advantages it should be sketched into the constitution.

## **5.6 Conclusion**

The current chapter has revealed that the management of e-procurement services in relative surveyed e-procurement in Kenya and Uganda compared with Tanzania in particular has made known to numerous issues of legal and regulatory challenges that encountered and need to be fixed. For example, Kenya has established various e-procurement regulations that promote effectiveness and efficiency of e-procurement

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<sup>276</sup> What is Procurement Management? Key Steps and Roles, Michigan University, 2023 (<https://www.michiganstateuniversityonline.com> on 08.05.2023)

that are different in Uganda and Tanzania. Also, it has been realised that, Kenya has the National Public Procurement and Asset Disposal Policy 2020, Uganda has Public Sector Procurement Policy to support socio-economic development and transformation and also encourages the use of public sector procurement, whereas Tanzania has not formed any comprehensive policy. Also, the Constitution of Kenya recognises procurement. Nonetheless, Tanzania and Uganda neglect recognition of procurement in constitution notwithstanding of its importance in assisting to run government programmes.

Therefore, Tanzania can learn from Kenya and further treat the challenges practised as a way to formulating comprehensive legal and regulatory framework that removes the jeopardy and improving the procurement in the public sector.

**CHAPTER SIX**  
**RISKS AND REGULATORY ISSUES IN E- PROCUREMENT**  
**TECHNOLOGY**

**6.1 Introduction**

Emergence of information and communication technology and electronically transactions has brought a mixture of insecurities, vulnerabilities and threats worldwide. The security has been a growing problem due to the rise of procurement transactions conducted over the internet. These developments in electronic transactions and e-procurement in particular have transported risks to many investors in e-procurement. This is so because security and privacy of data in e-procurement are crucial elements for growing productivity, lowering purchasing pricing, modernized processes, reducing time of order fulfilment and better budgeting.

However, with technological advancements and ever evolving cyber security, there are many ways electronic transactions may become safer. The chapter is designed to examine the risks and regulatory issues surrounding e-procurement generally and Tanzania in particular. The examination is based on the current situation and measures taken to manage the risk and threats of security in e-procurement as security of the sensitive data, the legal nature of orders and payments are critical in e-procurement.

**6.2 Risks in Public Procurement Technology**

Risk is a measurable uncertainty that something is likely to occur that lets projects

fall, decrease their utility or increases their costs and duration.<sup>277</sup> Therefore, risk is a measurable uncertainty of outcome, whether positive or negative and is a barrier for procurement technology in which as procurement technology raises, also different suppliers faces the different risks in different sectors and administrations<sup>278</sup>. The following are examples of major procurement risks in the procurement cycle;

### 6.2.1 Technological Risks

Different scholars and literatures define the technological risks. For example, the National Institute of Standards and Technology defines technological risk as the risks associated with the evolution of the design and the production of the system of interest affecting the level of performance necessary to meet the stakeholders expectations and technical requirements.<sup>279</sup>

Dunbar defines technological risk as the risk associated with the evolution of the design and the production of the system of interest affecting the level of performance necessary to meet the stakeholders` expectations and technical requirements. The design, test and production processes are the ones influencing technological risks.<sup>280</sup>

Also, IGI Global describes technological risks as risks delivered from any occurrence with negative impact which could be mitigated by application of technical skills resulting into an improved design, system or process thereby

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<sup>277</sup> European Commission, Risk Management in the procurement of innovation, Concepts and Empirical Evidence in the European Union, Expert Group Report, EUR 24229EN, 2010 at pp.19-21

<sup>278</sup> Ibid

<sup>279</sup> The National Institute of Standards and Technology, Technical Risks, Glossary accessed from <https://csrc.nist.gov> 15.05.2023)

<sup>280</sup> Dunbar, B., Technical Risk Management in Risk Management Handbook, National Aeronautics and Space Administration (NASA), 2019 (accessed from <https://www.nasa.gov> on 15.5.2023)

reducing the potential impact on the program.<sup>281</sup> Technological risks have been regarded as risks that are derived from any potential technology failure that disrupt a business such as information security incidents, cyber-attacks and password.<sup>282</sup>

Technological risks may arise as the impact of a natural hazard or man-made incidents. Examples of technological risks include industrial pollution, nuclear radiation, dam failures and chemicals caused by hardware and software failures, human errors, spam, viruses and malicious attacks and natural disasters such as cyclones and fires.<sup>283</sup> Therefore, technological risks may affect procurement processes that make impossible to generate economic development of the public sector.

### **6.2.2 Societal and Organisational Risks**

Societal risks are among the risks surrounding procurement. They normally involve the relationship between frequency and number of individuals that suffered specific harm within society. The base of total risk to a population is frequency of each hazard and total number of the persons affected<sup>284</sup>. Examples of societal risks include issues such as health, educational and social policies that help to maintain economic or social inequalities or forced labour and excising working hour.

On other hand, organisational and societal risks are those risks of procuring vanishing under the reasons connected within the organization that procures. The basic functions of organization risk management are to mitigate and minimise risk in

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<sup>281</sup> What is Technological Risks, IGI Global (accessed <https://www.igi.global.com> on 15.05.2023)

<sup>282</sup> Risk Optics Community, What is Technology Risk (accessed from <https://reciprocity.com> 15.05.2023)

<sup>283</sup> Green, M., Technological Hazard, Texas A & M University System (accessed from <https://www.tdem.texas.gov> 15.05.2023)

<sup>284</sup> Nicholls, C and Smith, J., Confusion Over Risk Criteria, Hazards 30 (accessed from <https://www.icheme.org> on 15.05.2023)

order to reduce negative consequences. By taking a proactive approach to risk and risk management, the organization become able to achieve improvement in form of operational performance of the organization which followed by the organization being efficient if the events that caused a burden will be identified and managed; the processes developed in organization will be effective if taken into consideration prior to selection of processes and the risks involved and finally, the chosen strategy of the organization will be effective if the risks associated will be fully analysed.<sup>285</sup>

### **6.2.3 Turbulence Risks**

Turbulence risks are those risks which are mainly connected with large scale projects.<sup>286</sup> These risks arise from a range of unforeseen events that lead various actors in the whole process to re-assess their priorities and change their expectations. These risks occur within organizations as a result of the interaction of various actions and actors in the whole project and may be managed by a constant discourse and monitoring of the actors` behaviours especially in complex, large scale projects and when projects are dependent on complex political decisions and commitments.<sup>287</sup>

### **6.2.4 Financial Risks**

The financial risks are those referred to as the possibility of losing money on a business or investment which implies the inability to control monetary policy and other debts in the public sector.<sup>288</sup> Well defined measures of financial risks are important to allow the senior management to devise strategies to monitor and

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<sup>285</sup>Arbiana, G., Measuring and Managing the Impact of Risk on Organizations: The Case of Kosovo, Munich Personal RePEc Archive (MPRA) Paper No.38975 , 2012 at p. 9

<sup>286</sup>Jurimae, T., Risk Management in the Procurement of Innovation, Concepts and Evidence in the European Union, Expert Group Report, European Commission 2010 at p. 6 (accessed from <https://ec.europa.eu> on 15.05.2023)

<sup>287</sup>Ibid

<sup>288</sup>Hayees, A., Understanding Financial Risks plus Tools to control it, Investopedia (accessed from <https://www.investopedia.com> on 15.05.2023)

evaluate risks.<sup>289</sup>

#### **6.2.4.1 Types of Financial Risks**

There are many ways to categorize financial risks which include separating the financial risks into market risk, operational risks, credit risks, liquidity risk and systematic risk.

##### **6.2.4.1.1 Market Risk**

Market risks are possible losses that affect the overall performance of investment, for instance, quality, supplier reliability, customer expectations, costs and delivery in procurement.<sup>290</sup> Market risks may get up due to changes in interest rates, exchanges rates, geopolitical events or recessions and they cannot be removed through diversification though they can be hedged on other ways through hedging strategies to protect volatility and minimise the impact of market risk in the investment market. The standard deviation of changes in prices of stock, currencies or commodities is referred to as volatility.<sup>291</sup>

##### **6.2.4.1.2 Operational Risk**

Operational risk is risk that arises due to operational failure such as mismanagement, or technical failures, faulty software or computer break down.<sup>292</sup> The Basel Committee on Banking Supervision and Social Development Bank for Europe

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<sup>289</sup>Bansal, A et al., Financial Risk and Financial Risk Management Technology Issues and Advantages, Center for Digital Economy Research, Stem School of Business Working Paper IS-92-31 at p. 6

<sup>290</sup> Hayes, D., Market Risk Definition: How to Deal with Systematic Risk, Investopedia (accessed from <https://www.investopedia.com> on 15.05.2023)

<sup>291</sup>Kokkola, T., Payments, Securities and Derivates, and the Role of the Euro system, European Central Bank, 2010 at p. 115

<sup>292</sup>Verma, E., What is Financial Risks and Its Types? Everything You Need to Know, Simplilearn 2023 (accessed from <https://www.simplilearn.com> 15.05.2023)

defines operation risk as the potential loss resulting from inadequate or failed internal processes, people, systems, external events including legal risk.<sup>293</sup>

#### **6.2.4.1.3 Credit Risks**

Credit risks are those risks which occur when one fails to fulfil their commitments towards their counterparties. It is the risk of the buyer of an asset delivering funds to its counterpart but not receiving the asset purchased which means there is a loss to the full principal value of the asset involved.<sup>294</sup> A bank that purchases electronic money from an issuer in order to sell it to customers is also exposed to credit risk in event that the issuer defaults on its obligations to redeem the electronic money.<sup>295</sup>

#### **6.2.4.1.4 Reputational Risk**

Reputation risk is the financial risk related to reliability of business or organization. It is adverse effects to the reputation of organization that destroys the value of shareholders through loss of revenue, litigation, adverse publicity, withdrawal of chief employees, and fall in share values which affect the economic failure of organization or institution.<sup>296</sup> Normally, reputation risk may be made by third party through certain mistakes and frauds. Therefore, it is important for an organization to have a comprehensive systematic reputation risk assessment as it is an essential part of financial risk management system.<sup>297</sup>

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<sup>293</sup> Federal Deposit Insurance Corporation, Operational Risk Management, An Evolving Discipline, Summer 2006 (accessed from <https://www.fdic.gov> 17.05.2023)

<sup>294</sup> Kokkola, T., Ibid P.115

<sup>295</sup> Ibid

<sup>296</sup> Sethi, N et al., Ibid P.192

<sup>297</sup> Ibid



#### 6.2.4.1.5 Systematic Risk

Systematic risk is the risk that occurs when one participant fails to discharge its obligations in a system that causes other participants not to fulfil their commitments when they are due. This failure to comply with commitments may result in significant liquidity or credit problems over the market or systems hence causing the stability of financial system being threatened.<sup>298</sup> For example one bank's failure may cause failure of another bank, even though the second bank is solvent. The systematic risk impacts the entire financial market and economy as a whole.

According to Hartman, the systematic risk is the risk of experiencing a strong systematic event that adversely affects a number of systematically important intermediaries or markets. The cause of the event could be an exogenous shock which means from outside the financial system. Alternatively, the event could emerge endogenously from the financial system or from within the economy at large. The systematic event is strong when the intermediaries fail or when the markets concerned becomes dysfunctional.<sup>299</sup>

Systematic risk can also be defined as that which affects a considerable number of financial institutions or markets in a strong sense, thereby severely impairing the general functioning of the financial system related to the effectiveness and efficiency with which savings are channelled into real investments promising the highest

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<sup>298</sup>Kokkola, T. Ibid 128

<sup>299</sup> Hartmann, The Concept of Systematic Risk, European Central Bank (ECB), Financial Stability Review, December 2009 (at <https://www.ecb.europa.eu> on 19.05.2023) at pp.134-142

returns.<sup>300</sup>

#### **6.2.4.2 Strategies for Financial Risk Management**

Financial risk management is the process of evaluating and managing current and possible financial risk to decrease organization`s exposure to risk by identifying the risk, measuring it, evaluating all possible remedies, developing a strategy and then implementing the steps and financial instruments required to minimize potential complications.<sup>301</sup> It is a dynamic process which relates to the institution and its business and entails both internal and external factors. The internal part of process includes identification and prioritization of the financial risks facing an institution and understanding its importance. The appropriate strategies of financial risk management are implemented and refined in accordance with changes in market and requirements of the organization.<sup>302</sup>

The financial risk management strategies are policies and plans of action designed to deal with financial risks through identifying potential financial risks; analysing and quantifying the severity of the risks; deciding on a strategy to manage risks and monitoring the success of the strategy.<sup>303</sup> Thus, to control financial risks, organization or the public sector needs to implement sound, consistent and efficient risk management methods. The strategies to manage financial risk consist of transformation of risk from the original risk barrier to another party without

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<sup>300</sup> Bandit, O., Systematic Risk; A Survey, European Central Bank, Working Paper Series no. 35 November 2000 at p.11 (accessed from <https://www.ecb.europa.eu> on 18.05.2023)

<sup>301</sup> Finance Gartner Glossary, Definition of Financial Risk Management (accessed from <https://www.gartner.com> on 19.05.2023)

<sup>302</sup> Sethi, N et al, *A Survey of International Financial Risk Management System*, Journal of Public Administration, Finance and Law 2013 Issue 4 at p. 187 (accessed from <https://www.jopafll.com> on 15.05.2023)

<sup>303</sup> Powell, S., *Financial Risk Management Strategies*, CFI Education Inc. 2015 to 2023

reducing losses, risks, avoiding and accepting portion or all the potential consequences of a particular risk. The suitable management processes should be used to determine the risk limits, measures the effect of management instruments, monitor the risks positions in terms of observing the defined limits and other requirements.<sup>304</sup>

There are various risk management strategies available in both corporations and financial institutions which include risk avoidance, risk reduction, risk transfer and risk retention<sup>305</sup>. Risk avoidance which is the elimination of activities that can expose the organization to risks; for example, the organization may avoid expanding operations to a geographical area that has high political and regulatory uncertainty. Risk reduction is mitigating possible losses or severe losses while risk transfer means the process of transferring risk to a third party for example purchase of insurance on property, plant and equipment which transfer the risk of damage and theft to the insurer. On the other hand, risk retention is the process of accepting responsibility of a particular risk, for example accepting risks of volatile input costs without using any insurance.<sup>306</sup>

### **6.3 Security Risks**

Security risk is an event that has been causing asset loss and undesirable consequences or impact of such loss.<sup>307</sup>

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<sup>304</sup>Ibid P.193

<sup>305</sup> Powell, S.,Ibid

<sup>306</sup> Ibid

<sup>307</sup>Ubongeh, Which Situation is A Security Risk, Health Safety and Environmental Encyclopedia (HSEWatch) (accessed from <https://hsewatch.com> on 19.05.2023)

### 6.3.1 Common Security Threats

The following are the most common security threats often committed online:

### 6.3.2 Malware

Malware is malicious software deliberately designed to cause unwanted task which is in form of a file or code delivered over network to infect, explore, steal or conduct any behaviour an attacker desires.<sup>308</sup> Examples of malwares are viruses, worms, Trojan horses, spyware etc. Malware has the objectives of stealing sensitive data, providing remote control for an attacker to use an infected machine and investigate the infected user`s local network.<sup>309</sup>

Malware uses a variety of methods to spread itself to other computer systems through email attachments containing malicious code when opened and executed by unsuspecting user. When those emails are forwarded , the malware spreads deeper into an organization, further compromising a network; file servers such as those based on common internet file system and network file system can enable malware to spread quickly as users access and download infected files; peer to peer file sharing which can introduce malware by sharing files which seem to be harmless as music or pictures and also remotely usable vulnerabilities can enable a hacker to access systems regardless of geographic location with little involvement by a computer.<sup>310</sup> In electronic procurement, if there is absence of secured online procurement, malware may affect smooth operation of procurement in terms of

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<sup>308</sup> Malware: What is Malware & How to Stay Protected from Malware Attacks, Paloalto Networks (accessed from <https://www.paloaltonetworks.com> on 20.05.2023)

<sup>309</sup> Ibid

<sup>310</sup> Ibid

online tender data, to falsify e-contract and e-payment information.

### **6.3.3 Spyware**

Spyware can be defined as malicious software that enters the user's computer, gathers data from a device and then the user sends it to third parties without their consent.<sup>311</sup> Spy ware collects personal and sensitive data like user's email addresses and passwords, internet usage information and browsing habits, financial details and account personal identification number (PIN) code and cause data theft, identity theft, device damage and browsing disruption.<sup>312</sup>

The effects of spyware in electronic procurement include negative hardware performance, which leads to making the device runs more slowly than usual, it causes unusual errors; unexpected browser changes and alters application configurations. For example, when it is at the browser's homepage., it does serious harm to networks, thus resulting in vulnerabilities which affect smooth operation of e-procurement in terms of efficiency and consistency.<sup>313</sup>

### **6.3.4 Data Breaches**

Risk of data breaches arises when sensitive data is stolen or leaked to unintended parties from external or internal attacks. External attacks happen from hacks, malware or phishing while the internal attacks happen in respect of disgrusted or improper trained employees though regular internal audits may help to lessen the instances of data breaches.<sup>314</sup>

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<sup>311</sup> What is Spyware? Definition, Types and Protection, Fortinet (accessed from <https://www.fortinet.com> on 20.05.2023)

<sup>312</sup> Ibid

<sup>313</sup> Ibid

<sup>314</sup> What is Technology Risk, Risk Optics 2022 (accessed from <https://reciprocity.com> on 20.05.2023)

### **6.3.5 Denial of Service Attack**

A denial of service attack is an attack that makes legitimate users unable to access information systems, devices or other network resources due to actions of a malicious threat actor. Services affected include emails, websites, online accounts or other services that rely on the affected computer or network.<sup>315</sup> The devices that can be affected include CPU and memory bandwidth. Denial of service attack may affect customer`s ability of doing e-procurement components on their computer device hence affecting the e-procurement cycle.

### **6.3.6 Phishing**

Phishing is the process of obtaining sensitive data such as bank accounts, usernames, passwords and credit cards details through fraudulent solicitation in email or on web site in which the culprit pretends to be a legitimate business or reputable person.<sup>316</sup> Through such faith, a victim may give away sensitive data or pay fake invoices or doing anything else the attacker asks for. The consequences of such fraudulent actions in procurement entities is reduction of working assets, money and other sensitive matters that lead to lack of competition in procurement thereby causing failure of business.

### **6.3.7 Identity Theft**

Identity theft is a process of acquiring the data of another person such as social security number, bank account number and credit card information and

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<sup>315</sup> The Economic Times, What is Denial-of-Service (accessed from <https://www.economictimes.indiatimes.com> on 20.05.2023)

<sup>316</sup> Phishing Glossary, NIST Computer Security Resource Center (accessed from <https://csrc.nist.gov> on 20.05.2023)

counterfeiting them while enabling the thief to acquire goods while attributing the charge to another person`s account.<sup>317</sup> A similar definition is provided by Hussain who states that, identity theft is a crime of obtaining the personal or financial information of another person to use their identity to commit fraud such as making unauthorized transactions or purchases and the victims are left with damage to their credits, finances and reputations.<sup>318</sup>

Identity thieves commonly use computer technology to obtain people`s personal information for identity fraud by searching hard drives of discarded computers; hack into computer or computer networks, accessing computer based public records or using deceptive emails or text messages. Examples of identity theft include financial identity theft, synthetic identity theft and tax identity theft. Some of the clear indicators of identity theft includes bills for items that one did not buy that can be seen in one`s credit card or receiving calls from debt collectors regarding accounts that did not open. Such risks may affect the operation of electronic procurement by adding an illegal tax into one`s procurement entity, high bills and even shutting down utilities.

### **6.3.8 Industrial Espionage**

The industrial espionage is referred to as the illegal and unethical theft of business trade secrets for use by a competitor to achieve a competitive advantage. Normally, this activity is a hidden practice often done by an insider or an employee who gains employment for the expressing the purpose of spying and stealing information for a

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<sup>317</sup> Anderson, K.B., et al, *Identity Theft*, Journal of Economic Perspectives, 2008 Vol.22 Number 2 at p. 171

<sup>318</sup>Hussain, A., What is Identity? Definition, Types and Examples, Investopedia (accessed from <https://www.investopedia.com> 21.05.2023)

competitor.<sup>319</sup>

Industrial espionage is commonly associated with technology heavy industries mostly the computer, biotechnology, aerospace, chemical, energy and auto-sectors though in recent years, industrial espionage has grown with the help of the internet and lax cyber-security<sup>320</sup>. Industrial espionage jeopardises e-procurement through theft of intellectual property such as manufacturing processes and chemical formulas and also, denial of access to key information such as pricing, planning.

### **6.3.9 Misuses of e-Payment Systems**

Security is the biggest problem of electronic payment systems as it contains illegal criminal activities like terrorism, money laundering, online betting and gambling.<sup>321</sup>

In this situation the electronic payment systems provide users` secrecy. There is a real risk of flow of a large sum of money which is impossible to trace and prove its origin.

#### **6.3.9.1 Money Laundering**

The process of money laundering takes place through placement, layering and integration. Placement is breaking the sum into smaller amounts which are deposited on bank accounts. In layering, the movement of money is shaped through network transactions between related entities while integration represents reunification of the financial resources in one place with legal origin.

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<sup>319</sup> Kenton, W., Industrial Espionage : Definition, Examples, Types and Legality, Investopedia 2022 (accessed from <https://www.investopedia.com> on 21.05.2023)

<sup>320</sup> Ibid

<sup>321</sup> Tomic, N et al., Misuses of Electronic Payment Systems, Contemporary Issues in Economics, Business and Management at Kragujevac, Vol.4 Conference Paper, November 2016 at p. 246 (accessed from <https://www.researchgate.net> on 21.05.2023)



The use of electronic money for laundering illegal funds has critical momentum on the purchase of electronic money especially when investing funds, since the number of electronic money systems requires payment through an intermediary because payment can be done with fake documents and e-money can be held in the name of the person whose identity has been stolen.<sup>322</sup>

#### **6.3.9.2 Online Betting and Gambling**

Problems of online betting and gambling are closely related to money laundering and tax evasion since the beginning of commercial use of the internet, various forms of online gambling and betting have been available to users while the traditional occasions have increased their betting over internet and they enrich the offer with live bets. There are brand new online casino and sports-bets that operate without physical branches. They are located in tax havens and offshore centres, for example in the Caribbean. The origin of funds invested by users is not audited nor there an obligation did to use all invest funds. In practice, users can pay a large sum for gambling from one account, play few rounds with the use of a small part of the available funds and then request payment of winnings. All the available funds even those that were not used for games are paid on accounts which users requests. In this way, the payment of dirty money is legalized.<sup>323</sup>

#### **6.3.9.3 Criminal Activities and Terrorism Financing**

There are two sources of financing terrorist activities. These are donations and incomes of terrorist group` members. Income terroristic groups connect to the

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<sup>322</sup> Ibid

<sup>323</sup> Ibid

criminal activities like drug and oil smuggling. On other hand, donations could not only from illegal activities. Wealthy individuals from many countries support terroristic groups on grounds of their ideological and religious orientation. The money used in terrorism is collected by various non-government organizations and non-profit funds that are registered for charity work or promotion of education, sports or culture in target areas. Purposes previously intended, the funds are used in the terrorist group camps or purchasing of weapons or equipment.<sup>324</sup>

In general, there is a high risk of misuse of electronic payment systems which are the components of e-procurement. The ability to transfer funds swiftly and cross-border payments have created the additional value for legal business but on the other hand, they opened a wide chance for misuses that affect even e-procurement processes.

#### **6.4 Importance of Security**

The widespread use of online technology has led to a wide range of data security concerns. The rise in the use of electronic services and computer devices becomes the target of electronic violations. For example, the absence of secured reliability and confidentiality of financial data like bid documents in e-procurement may promote corruption. Thus, availability of legal data security helps to have information about security hardware, software solution and information security procedures which control corruption.<sup>325</sup>The efficient legal and regulatory structure also restricts the use of ICT on e-procurement for business growth and advancement. This is because the

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<sup>324</sup> Ibid

<sup>325</sup> Panda, P and Sahu, G. P., *E-Procurement Implementation: Critical Analysis of Success Factors` Impact on Project Outcome, Working Paper*, SSRN Electronic Journal 2012 Vol. 9 No.2 (accessed from <https://www.researchgate.net> 04. 12.2018).

paramount success of any business transactions depends on adherence of security instruments and security of data.

Another importance of security is that the government data which comprises of the legal orders and payments lead to creation of confidence among purchasers and buyers. It is required to operate in defined rules in a way that confidence is contented to who places orders that is a buyer and the supplier who fulfils the orders.<sup>326</sup> Similarly, availability of strong security may result in avoidance of the contradictory jurisdictions; intellectual property privileges; fraud and business espionage.<sup>327</sup>

In short, the development of ICTs and advent of electronic transactions including e-procurement has created emergence of different types of vulnerabilities and threats. The volume and variety of electronic financial services have increased significantly and the use of electronic media to do business whether online or through remote mechanisms has spread rapidly over the past decade.<sup>328</sup>

Therefore, it is vital to protect data and prevent unauthorized access in order to meet and maintain compliances requirements and protecting brand reputation.<sup>329</sup> One of

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<sup>326</sup>Massawe, A. A. S., `Assessment of Challenges Facing Suppliers in Implementation of E-Procurement: A Case of Moshi Urban Water Supply and Sanitation Authority`, A Research Paper Submitted in Partial Fulfilment of the Award of Certified Procurement and Supplies Professionals (CPSP) of the Procurement and Supplies Professionals and Technicians Board (PSPTB) 2016.

<sup>327</sup>Mmbaga, S., `The Challenges Facing e-Procurement Implementation in Tanzania: A Case of National Food Reserve Agency`, A Research Paper Submitted in Partial Fulfilment of the Award of Certified Procurement and Supplies Professionals (CPSP) of the Procurement and Supplies Professionals and Technicians Board (PSPTB) 2016.

<sup>328</sup>Glaessner, T et al., Electronic Security: Risk Management in Financial Transactions, Public Policy Issues, World Bank Policy Research Working Paper 2870, July 2002 at p. 4

<sup>329</sup> Five ways to Defend Against Network Security Threats, EC-Council Cybersecurity Exchange (accessed from <https://www.eccouncil.org> on 14.05.2023)

protection mechanism is the use of electronic security infrastructure to protect the system and its data from external and internal threats.

The electronic security is a process of protection resulting from all measures designed to deny the unauthorized person's information of value which might be derived from the possession and study of electromagnetic radiations.<sup>330</sup> The electronic security is defined as policies, guidelines, processes and actions needed to enable electronic transactions to be carried out with the smallest risk of breach, in trust or theft which can be done over the internet because, the internet is a broadcast medium.<sup>331</sup>

## **6.5 Regulatory Issues in e-Procurement**

Emergence and application of information and technology in e-procurement has brought influence to many countries and Tanzania in particular. Various activities which were manually procured are now electronically performed. However, there are weaknesses associated with adopting e-procurement in most of the developing countries including Tanzania. These include lack of infrastructure, non-compatibility of legal and regulatory issues, organizational and cultural factors, technical and operational issues, lack of alignment in jurisdiction and service dependency risks.

### **6.5.1 Lack of Infrastructure**

One of the obstacles in adopting e-procurement in developing countries is the lack of adequate infrastructure such as consistent internet access, electricity and hardware.

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<sup>330</sup>Electronic security-Encyclopaedia-The Free Dictionary (accessed from <https://encyclopedia2.thefreedictionary.com> on 19.05.2023)

<sup>331</sup>Glaessener, T., et al, p. 4

These are basic requirements for e-procurement. Without them e-procurement cannot function accurately and may result in delays, errors and frauds. Also, lack of the infrastructure limits the participation of suppliers who are in remote areas who may not have means to access and use of e-procurement portals.<sup>332</sup>

### **6.5.2 Non-compatibility of Legal and Regulatory Issues**

One of the challenges facing e-procurement is lack of supportive e-procurement practices. For instance, some countries may have laws that recognize e-contract, e-signatures or e-payments that protect the privacy and security of data and e-transactions. This may make uncertainties, risks or disputes minimal. Some other countries may have complex rules and procedures which may not be aligned or integrated with e-procurement systems and may cause confusion, inefficiency or corruption.<sup>333</sup>

### **6.5.3 Organizational and Cultural Factors**

Organizational and cultural factors may affect the willingness and readiness of stakeholders involved in the procurement process such as public officials, suppliers and civil society. Users resist changing, due to lack of e-procurement skills or information skills needed, fear and trust.<sup>334</sup>

### **6.5.4 Technical and Operational Issues**

Lack of common technology standard and security of transactions affects progress of implementing e-procurement in terms of performance or quality or functionality or

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<sup>332</sup>Galvis, J.E.J., E-procurement Benefits and Challenges in Developing Countries, LinkedIn, 27 April, 2023 (accessed from <https://www.linkedin.com> on 22.05.2023)

<sup>333</sup> Ibid

<sup>334</sup> Sitar, C.P., The Barriers of Implementing e-Procurement, Studia Universitatis "Vasile Goldis" Arad - Economics Series 2, 2011 at p.123

satisfaction of e-procurement processes.<sup>335</sup>

### **6.5.5 Lack of Alignment in Jurisdiction**

Each country takes different styles in attempting legal issues and companies that are not familiar with foreign laws may face unexpected liabilities. Criminal penalties vary in different countries, in which case some consider computer hacking as law breaking and offenders are fined or imprisoned while in other countries such acts are not prosecuted.<sup>336</sup>

### **6.5.6 Insecurity in E-Transactions**

Shared systems, network resources or web servers used are subjected to theft, virus and worm attacks. This creates complications in controlling access to computer which contains confidential information and hence putting integrity of the information at risk. These attacks can be either external hackers or internal employees. There are cases where the data base of credit cards information is hacked or used by unauthorized persons who gain access to sensitive information from systems which were proclaimed secure.<sup>337</sup>

## **6.6 Risk Issues in e-Procurement in Tanzania**

E-procurement in Tanzania is not safe as it is prone to several risks. This statement is evidenced by the literatures available in Tanzania. For example, Makoba and his fellows state that, the use of electronic procurement in construction companies in Tanzania is associated with computer viruses and worms attacks, shortage in internet

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<sup>335</sup> Ibid

<sup>336</sup> Ting, S.K and Wong, H.Y., Legal Challenges & Strategies in e-Procurement in Construction, University of Auckland (accessed from <https://www.cs.auckland.ac.nz> on 22.05.2023)

<sup>337</sup> Ibid

services and electric power supply, non-compatibility of technology, lack of assurance on confidentiality of information and dishonest attack in financial transactions.<sup>338</sup> Also, Maagi comments that, the categories of e-payment risks which are highly distressing in Tanzania are hacking, loss of data and loss of funds, poor communication, delay of item, inadequate funds and lack of knowledge and skills and also poor tracking.<sup>339</sup>

Aloyce points out that, frauds and corruption are procurement risks existing in public organizations in Tanzania. The inappropriate procedure in evaluation of offer which is result in failure to address enquiries from tenderers and actual breach of confidentiality, low quality of the materials procured in the public sector. These signals have negative impact on procurement performance in the public sector including causing the misinterpretation of users` needs and failure to identify appropriate bidders.<sup>340</sup>

## **6.7 Regulatory Framework of Procurement Risks in Tanzania**

Tanzania has established the guidelines for securities in Public Procurement for carrying out procurement activities as per S.9 (1) (f) of the Public Procurement Act (Cap 410) RE 2022. The guidelines apply for tender securities or tender securities declaration, performance security or performance security declaration and advance payment guarantee and should be used by all procuring entities during the tendering

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<sup>338</sup>Makoba, N et al., *E-Procurement Risks and Mitigation: The Case for Tanzania Construction Companies*, International Journal of Construction and Management, 2017 Vol.6 Issue No.4 at pp. 183-184

<sup>339</sup>Maagi, B., *Systems in Tanzania: Challenges and Risks*, Business Educational Journal 2018 Vol. II Issue 1 at pp. 7-10 (accessed from <https://www.cbe.ac.tz> on 11.05.2023)

<sup>340</sup>Aloyce, A., `Management of Procurement Risks in Public Sector: A Case of National Housing Corporation (NHC)`, Master`s Degree Dissertation on Procurement and Supply Chain Management (MSc.PSCM), Mzumbe University, Tanzania at pp. 61-63

process and contract management.

## **6.8 Strategies for Mitigating Legal Uncertainties in e-Procurement**

Following the presence of overgrowing threats affecting security in procurement, there is a need to control the use, access, modification, disclosure of computer which can be done without authorization. The following hereunder are the strategies that may mitigate or control threats.

### **6.8.1 Information Security**

Information security is defined as a technique to ensure the data stored electronically cannot be ready or negotiated by any individual without being authorized. It comprises elements such as prevention of unauthorized access, use, disclosure, disruption, modification, inspection, recording or destruction of information.<sup>341</sup> The information security may alternatively be termed as risk management that refers to coordinated activities to direct and control an organisation with respects to risks to the security of its information. Information security risk management contains a process which establishes the external and internal background, evaluate the risks and treat the risks using a risk treatment plan to implement decisions on how to manage the risks.<sup>342</sup>

Information security is the procedure to protect information of wide range of threats in order to ensure business stability, minimizing business impairment as well as to

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<sup>341</sup>Olusegun, B.S, 'Investigating Factors affecting Electronic Procurement Acceptance Decision among Nigerian Small and Medium Enterprises' in Webopedia, International Journal of Innovative Research and Advanced Studies (IJRAS) 2017 Vol. 4 Issue No.2 at p. 385

<sup>342</sup>Zacharis, A et al, Compendium of Risk Management Frameworks with Potential Interoperability, European Union Agency for Cybersecurity (ENISA), 2022 P.6



maximizing return on investment and business opportunities<sup>343</sup>. The assurances are achieved by implementing the right set of controls like policies, procedures, organizational structures and software functions to meet the security objectives.<sup>344</sup> Web applications are highly susceptible to attacks through account details, social security numbers and other sensitive data that can be accessed and stolen.<sup>345</sup> This susceptibility is present because the existing security solutions such as network firewalls, intrusion detection systems, and encryption and manual measures are unable to prevent those attacks.<sup>346</sup>

Electronic security is one of the issues hindering the implementation of e-procurement<sup>347</sup> and it has an impact on the trust of the users.<sup>348</sup> This assurance is the heart of the integrity of the procurement transactions as it is a criterion for adoption of electronic market tools and e-procurement. Thai cements the importance of security in e-procurement in his article entitled “e-Government Procurement Technical Requirements and Specifications” by arguing that:

“because a tendering or framework agreement forms the basis for a legal contract, an e-government procurement system must guarantee that all data are kept secured, complete and auditable”<sup>349</sup>.

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<sup>343</sup> Stephens, S and Valverde, R., *Security of E-Procurement Transactions in Supply Chain Reengineering*, Computer and Information Science Journal 2013, Vol. 6 No. 3, Canadian Center of Science and Education (Publisher) at pp. 2-3 (accessed from <https://www.researchgate.net> on 13.01.2020).

<sup>344</sup> Ibid

<sup>345</sup> Ibid

<sup>346</sup> Ibid

<sup>347</sup> Rahim, M. M and As-Saber, S.N., *Electronic Procurement Adoption Process: An Arduous Journey for an Australian City Council*, International Journal of Electronic Finance 2011 Vol.5 No.5 at p. 163 (accessed from [www.researchgate.net](http://www.researchgate.net) on 13.01.2020).

<sup>348</sup> Voss, W.G., ‘Chapter 16, Security and Privacy Implications of e-Procurement in the TTIP’, Toulouse Business School (TBS), US 2015 at pp 1-10 (accessed from <https://www.cidob.org> on 18.01.2020).

<sup>349</sup> Thai, K.V., *e-Government Procurement Handbook*, Asian Development Bank, Mandaluyong City, Philippines 2013 at pp.101-103.

## 6.8.2 Security Governance

Security governance is a set of tasks and practices done by executive management to provide strategic direction, ensure objectives are attained, and determine whether the risks are flourished properly and verifying that the enterprise's resources are used correctly.<sup>350</sup>No unauthorised person has an access to data and the data cannot be hacked or misused by anyone. All sensitive data is put into secret code to prevent unauthorised access; the passwords of all stakeholders in terms of all buyers and suppliers are coded at the data level and further, there requires a validation and detention system.<sup>351</sup>The proposed guidance and recommended for the use of digital signature issued by a licensed authority include digital signature certificate, personal identification number (PIN) or biometric, network authentication and control of technical vulnerabilities like firewalls.<sup>352</sup>

The execution of security in an e-procurement needs a strong governance framework like data back-up strategies, supplier and administration user identification and deviations in security settings on the server performed by government approvers. This necessitates the present security tools and supervision of system to be secured by the international risk audit standards and methodologies. For instance, there is the Information Systems Audit and Control Association (ISACA 2011a) which links with organization-wide risk supervision concepts and methods such as Enterprise Risk Management Integrated Framework of the Committee of Sponsoring

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<sup>350</sup> 'The Importance of Policies and Procedures' in Fay, J.J and Patterson D, Contemporary Security Management, Butterworth-Heinemann (4<sup>th</sup> Edition) 2017 (accessed from <https://www.sciencedirect.com> on 20.04.2022).

<sup>351</sup>Reddy, A.V., 'e-Procurement-Security & Authentication Concerns' (accessed from <http://aphrdi.in> on 18.01.2020).

<sup>352</sup> Ibid

Organizations of the Tread-way Commission and ISO 31000.<sup>353</sup> The capable e-procurement scheme must stand compliant and frequently audited against these international standards. The security standards are tested and confirmed by a sound third-party audit agency. In short, the information security governance helps to align priorities, eliminates redundancies and reduces inefficiencies.<sup>354</sup>

### **6.8.3 Education**

Education is paramount for mitigating uncertainties in e-procurement which means every one participating in the procurement cycle must understand the importance of security, observing security measures and conforming to regulations as some of issues that need to be addressed continuously to create awareness. It is crucial for everyone involved in with information to be aware of potential legal issues and regard education as the most effective to resolve legal issues.<sup>355</sup>

### **6.8.4 Legal Framework and Enforcement**

Any country adopting e-procurement must incorporate security concerns in its laws, policies and practices bearing electronic security. Laws and regulations can act as prevention to cyber-crimes. Failure of any country to keep up the law related to electronic technology may encourage internet misuse which may lead to economic insecurity of the country.<sup>356</sup>

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<sup>353</sup> Khai, K.V, Ibid

<sup>354</sup> Cheney, M., 'Information Security Governance: Guidance for IT Compliance Frameworks', Linford & Co. LLP CA Firm (accessed from <https://linfordco.com> on 20.04.2022).

<sup>355</sup> Ting, S.K., and Wong, H.Y, Ibid

<sup>356</sup> Ibid

### **6.8.5 Public Key Infrastructure**

Use of Public Key Infrastructure (PKI) addresses the key elements of security that are authentication, non-repudiation, confidentiality and integrity. The European Commission (EC) on legislative framework on public procurement (2017) guide out the key principles for security of data like confidentiality, integrity and authentication to protect the unauthorized use or modification, authorization and interoperability as any data must not be released, altered or modified in unlawful approach.<sup>357</sup>

### **6.8.6 Confidentiality**

Confidentiality is a state of keeping something or being kept secret. Confidentiality entails that no information is released to a natural person who is not entitled to such information. The attitude of a natural person knowingly accesses a computer without permission or by exceeding authorized access is referred to as breach of confidentiality<sup>358</sup>. The following situations are elements of information to be classified as confidential. One, information about tender issued prior to the required time to potential respondents, evaluation methodology and weights of evaluation criteria, contents of submissions to the procurement processes and reports regarding the evaluation and its outcomes. All these should not be disclosed in any unlawful

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<sup>357</sup>Kirchberger, C and Olana, J.R., Issues of Security and Interoperability in Electronic Public Procurement, Final Report DG Ent:2003, the Stockholm Institute for Scandinavian Law 1957-2010 at p.59 (accessed from <https://pdfs.semanticscholar.org> on 18.01.2020) “See Recital (8) of the Electronic Signature Directives “capable of authenticating data electronically” Authentication can be understood as involving both signer authentication (the signature indicates who signed the document) as well document authentication (the signature identifies what is signed, thus making it impossible to falsify or alter the content without detection)”.

<sup>358</sup> Stephens, S and Valverde, R, Ibid at p. 2

manners to guarantee that the content of a request for tender remains safe.<sup>359</sup>

### **6.8.7 Integrity**

Integrity in procurement is a procedure of guaranteeing assurance in the public procurement process meaning that when documents are issued, the solicitation by the procurement entity, the information obtained must be reliable and free of uncertainty<sup>360</sup>. The breach of integrity may occur when data are altered, modified or destroyed without authorization<sup>361</sup>.

### **6.8.8 Authentication**

Authentication is the security process that involves verifying credentials with a username or user ID and password to verify identity. This process determines what one says by means of credentials.<sup>362</sup>

The following are the categories of authentication based on the security level:

#### **6.8.8.1 Single-Factor Authentication**

This is a process for securing access to a electronic device or website to identify the party wishing access in only one category of credentials such as username or user ID and password. In this category, the best practice is to create a strong password and safeguarding that no one can access it. However, the problem with passwords is that,

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<sup>359</sup>Hassett. A., Contract-Probity and Procurement in Government; Confidential Information Management, VGSO Seminar Series, Victorian Government Solicitor`s Office, 2009 at p.3 (accessed from <https://www.vgso.vic.gov.au> on 18.01.2020).

<sup>360</sup>Lynch. J., 'Integrity in Public Procurement' (accessed from <https://procurementclassroom.com> on 18.01.2020).

<sup>361</sup>Stephens, S and Valverde, R., Ibid at p. 2

<sup>362</sup>Khillar, S., Difference between Authentication and Authorization (accessed from [www.differencebetween.net](http://www.differencebetween.net) on 19.01.2020).

the most users lack skill on how to make strong and memorable passwords needed for security.<sup>363</sup>

### **6.8.8.2 Two-Factor Authentication**

This is a two-step verification or dual factor authentication that trusts on two factors to guarantee an added level of security such as Automated Teller Machine (ATM) pin which is known by only the user. It is done by using a surname, passwords along with other piece of confidential information to make it effectively cumbersome for fraudsters to steal the valuable data. Two-factor authentication enhances a layer of harder for attackers to access the person's devices or online accounts and authentication factors including the knowledge factor, for example, password or personal identification number (PIN), possession factor which means the things one has or owns like smart-phone. Others include inherence, location and time factors.<sup>364</sup>

### **6.8.8.3 Multi-Factor Authentication**

This is a security system that substantiates the user's identity with other many credentials such as surname, password and a code from the user's smart-phone, the answer to security inquiry, a fingerprint or facial recognition.<sup>365</sup> To authenticate certain data, the technical tool used is an electronic signature<sup>366</sup> which is formed by using asymmetric encryption that operates with two pair keys: a private key to encrypt data and a public key to decrypt data. Data encrypted with private key can be decrypted with the public key and vice versa. By encrypting a letter via a secret

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<sup>363</sup> Rouse, M., What is Single-Factor Authentication, WhatIs.com, 2015 (accessed from <https://searchsecurity.techtarget.com> on 19.01.2020).

<sup>364</sup> Ibid

<sup>365</sup> What is Multi-Factor Authentication (MFA)? How MFA Prevents Attacks from Criminals (accessed from <https://www.onelogin.com> on 19.01.2020).

<sup>366</sup> Kirchberger, C and Olana, J.R, Ibid

private key, the dispatcher signs it by electronic means to guarantee authentication and also to enable identification of the signatory depending on the presence of a trusted third party approving the identity with a certificate.<sup>367</sup>

## **6.9 Authorization**

This is a security arrangement that involves checking whether the authenticated user has the access to the particular resources. It validates who is approved the right to access resources such as information, databases, files and others. The arrangement checks the one who has granted an official permission to work in the online system.<sup>368</sup>

## **6.10 Interoperability**

This denotes the capability of different users to exchange data securely and re-use the data in corresponding systems, which is useful for linking e-procurement platforms. Interoperability represents the way the administrations can decrease an administrative problem through efficiency in the procurement procedure, save time and enable transformation of digitalization and support anti-corruption efforts by giving up contracting authorities improved skills to identify unqualified or omitted bidder.<sup>369</sup>

There are different levels of interoperability like, the technical interoperability, semantic interoperability and organizational interoperability. The technical

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<sup>367</sup> Ibid at p. 61

<sup>368</sup> Khiller, S., Ibid

<sup>369</sup> Interoperability between e-procurement Systems and Other Government Databases, Institute of Public Markets and Real Estate and Construction, Portugal (accessed from <https://ec.europa.eu> on 19.01.2020).

interoperability denotes the ability to connect to the system by defining standard protocols and data formats; while the semantic interoperability refers to the clear way of exchanging information within and across organizational borders; and organizational interoperability is concerned with processes enabling cooperation.<sup>370</sup>

One of interoperability applications is the use of e-signatures in European Union which form a major field of application of interoperability tool in e-procurement used equally to old-style signatures.<sup>371</sup>

In order to develop electronic security industry, it is necessary to identify the essential source of public interest and the case for regulation in the industry. There are reasons that assisting the electronic security to warrants public intervention like financial services and payment systems. The role of government and law enforcement and any approach to define public policies through law and regulations need to account for the influences of electronic security considerations or lack of risks.

The execution of security in an e-procurement needs a strong governance framework like data back-up strategies, supplier and administration user identification and deviations in security settings on the server performed by government approvers. This necessitates the present security tools and supervision of the system to be secured by the international risk audit standards and methodologies. One such organisation-wide risk management concept and method is the Information Systems

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<sup>370</sup>Mondorf, A and Wimmer, M. A., Interoperability IN E-Tendering: The Case of the Virtual Company Dossier, Conference Paper, January 2008 at p.12 (accessed from <https://www.researchgate.net> on 19.01.2020).

<sup>371</sup> The Community Framework for Electronic Signature Directive (Directive1999/93/EC)



Audit and Control Association (ISACA 2011a), which links with ISO 31000 and the Committee of Sponsoring Organizations of the Treadway Commission's Enterprise Risk Management Integrated Framework.<sup>372</sup> The capable e-procurement scheme must stand compliant and frequently audited against this international standard, the security standards are tested and confirmed by a sound third-party audit agency. In short, the information security governance helps to align priorities, eliminates redundancies and reduces inefficiencies.<sup>373</sup>

### **6.11 Combination of Mechanisms**

In order to provide an effective solution that reduce the legal uncertainties in e-procurement, the procuring sector may combine several elements like placing of new related legislation or self-regulation mechanism such as code of conduct and interchange agreements, education to employees, modification of the existing outdated policies, formulation of new strategies, adoption of the security system and software such as PKI.<sup>374</sup>

### **6.12 What should be done to Alleviate Security Risks**

As noted in the above discussion that Tanzania has the guidelines for securities in public procurement for carrying out procurement activities. However, having with guidelines is one thing and to enforcing them effectively is another thing. There is a need for Tanzania to enforce laws in order to protect the people involved in e-procurement activities such as e-tendering, e-contract and e-payment system in order

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<sup>372</sup> Khai, K.V., Ibid

<sup>373</sup> Cheney, M., 'Information Security Governance: Guidance for IT Compliance Frameworks', Linford & Co. LLP CA Firm (accessed from <https://linfordco.com> on 20.04.2022).

<sup>374</sup> Ting, S.K and Wong, H.Y., Ibid

to promote online business and build trust in undertaking online transactions and to disclose cyber-criminals acts to the general public so that users can get alerted and take protective measures to avoid the risks involved. Additionally, Tanzania is to establish strategies of the mitigation of the risks as the successful use of e-procurement through IT professionals to curb the risks associated with computer viruses, worms and dishonest attacks of financial transactions. The society should accept technological changes and be conversant with e-procurement in order to get inherent benefits of efficiency through volume purchases and reduction of transaction costs.

### **6.13 Conclusion**

The discussion above has revealed that many countries practising procurement technology especially development countries like Tanzania, do suffer from a set of risks like financial risks, security threats and regulatory challenges. These may be tackled by involving stakeholders in taking a vigilant approach to mitigate them. Some of the strategies may include deployment of information security, security governance, education to all stakeholders of e-procurement, establishing a legal framework and enforcement, formation of public key infrastructure and or combination of both machineries to support creation of effective control of financial risks and security threats. The involvement of different players in governing-procurement risks may stimulate production of risk-based regulation.

## CHAPTER SEVEN

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 7.1 Introduction

The key purpose of the study was to review the legal framework for e-procurement in the public sector in Tanzania. This was done by the way of assessing the available legal and regulatory development of e-procurement through doctrinal research and comparative research methods. In order to accomplish the planned objectives, the following research questions guided the study.

1. What are legal gaps existing in present laws governing e-procurement in Tanzania?
2. How has the impact of international and regional legal instruments influenced e-procurement in Tanzania?
3. What are developing strategies done by government in regard of e-procurement in Tanzania?
4. What are developing strategies done by government in regard of e-procurement in Tanzania?
5. Does the existing legal regime address the risks and challenges linked to e-procurement in Tanzania?

In order to assess the adequacy of legal and regulatory framework governing e-procurement in the country, the general standard from the UNCITRAL Model Law and classical regulations were employed in the analysis. Also, experience of other jurisdictions was involved in determining their legal position in addressing the similar matters, whereas the experience of Kenya and Uganda were considered in

comparing with the Tanzanian attitude regarding e-procurement.

## **7.2 Summary of the Study**

The study has responded to all five questions that were raised at the commencement of the study. The findings of the study have shown that the existing legislations in the country are insufficient to regulate e-procurement. There are several legal flaws related to the smooth operation of e-procurement. For example, there is a lack of a regulatory body for software which snags security and therefore the control machinery becomes hard, especially in dispute settlement in the instance a dispute arises. There is also a lack of uniformity in application of software. The applicability of software in the public sector of Tanzania is not uniform and is differently used by different procuring entities. Also, there are financial, security risks and regulatory flaws that affect effective and efficient operation of e-procurement.

Again, there is a problem of obedience to the accountability principle. For example, some staff discharges essential transactions in e-procurement. Nonetheless their liability or right of processing issues of procurement are not aligned with their responsibility as they are not taken care of by the Public Procurement 2011. The vivid example is the information and technology specialist (IT specialist). The IT specialist is not mentioned anywhere in the law. Failure of recognition of IT specialist by law may disturb morality and compliance of the highest standard of ethics and refrain from fraud and corruption.

Similarly, Tanzania is facing the deficiency of abiding to standardization. Therefore, the principle of consistency in procurement is not well achieved as there is no

procurement policy which may scrutinize in-depth plans and strategies for effective e-procurement processes. According to principle of consistency, the standardization of procurement must be across the public procurement sector.

Despite all that, the Tanzanian government has responded in different periods to address ICT related and e-procurement matters. For example, in 2003 Tanzania passed ICT policy, 2003 which was later revised in 2016 with the vision of making Tanzania economically, socially and culturally enriched with ICT enabled knowledge society. In 2016 the government passed the Public Procurement (Amendments) Regulations 2016 to accommodate e-procurement, the Electronic Transactions Act 2015 (Act No. 13 of 2015) was amended to recognize electronic contracts in S.21 (1)(2) as stated:

- (1) “a contract may be formed electronically unless agreed by the parties”.
- (2) “where an electronic record is used in the formation of a contract, that contract shall not be denied validity or enforceability on the ground that an electronic record was used for that purpose”.

Also, the Contract Act 2002 Cap 243 RE 2002 was amended to insert electronic words in S.10 of the Act that created a conducive environment for online transactions to facilitate interactions between Tanzanians and other nationals. Likewise, the Payment System Act 2015 (Act No. 4 of 2015) provided the power of BOT to supervise payment systems including electronic payment instructions and Tanzania Clearing House Rule 2015 that facilitate inter-banking payment instruments including electronic payments. However, both documents have not absorbed broadly legal issues transported by e-procurement such as the existence of several legal gaps

in e-contract management, dispute settlement, e-signature and e-payments. Others are procurement risks like financial risks, security threats and regulatory challenges corresponding to contradictory role of the law enforcement mechanisms, lack of e-complain mechanism, lack of comprehensive national public procurement policy and so forth.

### **7.3 Conclusion**

This study has addressed the development of e-procurement in the public sector in Tanzania, including the predictions and challenges associated with this podium. These facts come out as results of what identified in the research questions. For example, despite the several benefits that services bear to Tanzania as nation, yet there are several legal flaws that need attention in order to create favourable environment for nice operation of e-procurement.

In terms of research questions, the research number one provides; what are legal gaps existing in present laws governing e-procurement in Tanzania? It has been reviewed in this chapter that development of e-procurement in Tanzania is associated with legal gaps which affect efficiency and smooth operation of e-procurement including lack of a regulatory body for software and lack of uniformity in application of software which hitches security and operational costs. Others are lack of not achieving the essential principles responsible in procurement processes like accountability and consistency.

Also, in electronic tendering which is one core component of e-procurement, the tendency of existing law to allow evaluation committee in an e-tendering is another

impediment to smooth operation of e-procurement as the e-tendering function contributes into highly operation cost. Furthermore, in existing procurement regulation, there is provision that provides for the criterion of the lowest price bidder during evaluation of tender online. This criterion is contributory agent of the quality distress of goods, works and services offered by suppliers.

Regarding research question number two which enquires how has the impact of international and regional legal instruments influenced e-procurement in Tanzania? it has revealed from the research that the World Trade Organization on E-Procurement 2012, the UNCITRAL Model Law on Public Procurement 2011; United Nations (UN) e-Procurement Initiative in 2014 and the World Bank's Procurement Framework have contributed a lot in term of codifying some rules on e-procurement globally. These rules are very important in management of e-procurement. For example, the World Trade Organization on E-Procurement 2012 provided for the principles to be adopted in leading procurement by electronic means by a procuring entity, the technical requirements and tender qualification and application of evaluation methods by procuring entities.

The UNCITRAL Model law on Public Procurement 2011 established procedure assisted in competition, transparency, fairness and efficiency in the procurement processes. This procedure is international benchmark. Additionally, the rule also acknowledged a standard alone means of procurement. N case of the World Bank e-procurement framework, this reformed and promoted tailored procurement .Also, build expertise, capacity and shred the relevant experience in using e-procurement data and further released procurement indicators that help different countries

globally to understand better modernisation and attain compliance through e-procurement. Despite the advantages of these rules, Tanzania has not ratified any international or regional instrument to regulate e-procurement, instead remained to insist the use of domestic laws such as the amendment of the Public Procurement Act 2011 and the Public Procurement (Amendment Act) 2016 (Act No. 5 of 2016) which contain no standard rules.

Concerning research question number three which request what developing strategies are done by government in regard of e-procurement in Tanzania, it has been found out that, government of Tanzania has developed different incidences to recognize ICT and e-procurement in particular. Some of the strategies included to launch the National Information and Communication Technologies Policy 2003, which was later revised in 2016 in order to make Tanzania have enriched people with ICT enabled knowledge.

The strategy was followed by deploying several ICT systems for effective and efficient delivery such as ICT guidelines for security to save information systems assets like personnel data, hardware and software, the availability of resources like advent of the National ICT Policy 2016 and the National ICT Broadband Backbone influenced usage of ICT such as e-procurement and e-Government for socio-economic development. Also established an independent regulatory body called Tanzania Communication Regulatory Authority (TCRA) fully liberalizing the communication market and implementing a technology neutral converged licensing framework.



Others are amendment of the Evidence Act to incorporate revolution and its impact on the laws and prevailing procedures; established the electronic Transactions Act 2015 to accommodate electronic transaction in the country and Cybercrime Act 2015 to criminalise offences related to computer systems and ICTs, to provide for investigation, collection and use of electronic evidence; acknowledged electronic contracts and made changes to its internal laws.

This amendment of the Law of Contract Act 2002 [Cap 345RE 2002] was made to create conducive environment for online transactions that facilitate the social interactions between Tanzanians and other nationals; recognition of electronic contracts in the same way, Tanzania made the authorization of the current legal and regulatory framework of public procurement which allowed application of e-procurement unlike the previous Act, which is the Public Procurement Act 2004 and its regulations of 2005 which did not allow e-procurement application. As it may be recalled, Tanzania made amendment of its procurement Act 2011 to allow e-procurement to be applied.

Moreover, Tanzania migrated from terrestrial analogue to digital broadcasting to benefit from the information capacity, data security and communication quality and construction of submarine cables that provided high capacity optic fibre. This fibre linked Tanzania to the rest of the world and hence influenced external buyers to use e-procurement through the portal as well as use universities to create awareness, literacy and expertise to the community at large. Hence, the need for all steps of amending the stated laws was meant to make legalize electronic transactions

including the electronic procurement in Tanzania.

Furthermore, legislations like the Public Procurement Act 2011 CAP 410 RE 2022 and its subsidiary legislations (the Public Procurement Regulations, 2013) (GN No. 446), the Public Procurement (Amendments) Regulations 2016, the Law Reform (Fatal Accidents and Miscellaneous Provisions) Act Cap 310 RE 2002, the Law Reform (Fatal Accidents and Miscellaneous Provisions) Judicial Review Procedure and Fees) Rules 2014 and the Public Procurement Appeals Rules 2014 were established to the laws can be applied mastering in conducting e-procurement in Tanzania.

However, it has been revealed that, despite efforts to develop ICT regime (electronic transactions) and also, the Public Procurement Regulatory Authority and the Public Procurement Appeals Authority to act as watch dogs in the activities performed by procuring entities and suppliers, Tanzania's legal frameworks are inadequate to regulate or promote modernisation in e-procurement business due to existence of several legal gaps in both legislations and component of e-procurements such as e-contract management, dispute settlement, e-signature and e-payments.

Also, there are conflicting responsibilities of the law enforcement mechanisms of some regulatory authorities' e.g. PPRA is responsible with procurement entities compliance with public procurement like mandating to formulate criteria, indicators, guidelines and standard for the procuring entities but the same PPRA is required to conduct training to procurement officials, making procurement audit through periodic review and monitoring of PEs procurement activities and the training of PEs is a source of revenue for the PPRA. The multiple roles and absence of an oversight

institution to monitor the PPRA performance raises questions of conflict of interest.

Again, there is lack of the comprehensive national public procurement policy which, might be used as a road-map for the development plans of the procurement including e-procurement. Such a gap has been attributed to, among reasons, the PEs non-compliance with the procurement law in Tanzania. This situation calls for a need to reform the present regulations in order to have legal scene that recognises and protects welfares of e-procurement in Tanzania.

On research question number four that ask on what are the legal and regulatory developments of e-procurement in Kenya and Uganda counties, it has known that, there are several issues of legal and regulatory challenges that encountered and need to be fixed. For example, Kenya has established various e-procurement regulations that promote effectiveness and efficiency of e-procurement that are different in Uganda and Tanzania. Also, it has Noted, Kenya has the National Public Procurement and Asset Disposal Policy 2020, Uganda has has Public Procurement Policy to support socio-economic development and transformation and also encourages the use of public sector procurement, whereas Tanzania has not formed any comprehensive policy. Besides, the Constitution of Kenya recognises procurement. However, the constitution of Tanzania and Uganda have no article regulating procurement in constitution notwithstanding of its importance in assisting to run government functions and also, the large sum if national budget being consumed in procurement.

Therefore, Tanzania can learn from Kenya jurisdiction on policies and procedures applicable and further treat the challenges practised as a way to formulating

comprehensive legal and regulatory framework that removes the jeopardy and improving the procurement in public sector

On the subject of the research question number five which stipulate does the existing legal regime address the risks and challenges linked to e-procurement in Tanzania? From the study, Tanzania has found to be afflicted with a set of risks in e-procurement. These risks include technological, societal and organisational and turbulence risks. Other are financial risks like market risks, operational risks, credit risks reputational risks as well as security threats like malware, spyware, data breaches, denial of service attack and even regulatory challenges and lack of infrastructure like electricity and lack of adequate IT professionals.

#### **7.4 Recommendations**

There are a number of issues that need to be determined for realization of effective regulation of e-procurement in Tanzania. E-procurement needs reform that address legal and regulatory gaps in order to yield a valid and reliable podium. Therefore, several measures are needed to address the procurement problems in order to achieve an efficient public procurement. Thus, there is a need to enact effective legal procurement framework that would cut out legal flaws, security threats and regulatory weaknesses. Therefore, the thesis recommends the general and specific recommendation as effective and reliable measures of harmonising e-procurement legal atmosphere in Tanzania.

##### **7.4.1 General Recommendations**

It is revealed in the study that the current general situation on e-procurement in public sector in Tanzania is not satisfactory and needs reforms to reach desirable

standard. Thus, one of the key steps that need to be taken is to overhaul the current Public Procurement Act 2011 and its regulation No. 446 of 2013 and replaces them with the comprehensive e-procurement regulations that shall incorporate the development of recent ICT and advancement of technology and adoption of e-procurement which will provide the specific objectives of oversight bodies that will control irregularities, legal risks, regulatory challenges and conflict of interest.

The regulation should establish e-procurement standards as accorded by the international organizations through international and regional legal instruments. This new regulation should include specific laws and other regulations that will address the current concerns that face e-procurement as pointed out in the study. The process of establishing and managing it should be done by government but include all players and perspective stakeholders in the country including representatives, procurement oversight body like PPRA, , disputes resolution authority like PPAA and all other channels that are essential for ensuring comprehensive and effective e-procurement. It is very important to have this new scheme for e-procurement because the current is inefficient and renders tiny security to stakeholders.

There is a need for government of Tanzania to establish ratification process of the codified UNCITRAL Model Law on Public Procurement 2011 the World Trade Organization on E-Procurement 2012, the UNCITRAL Model Law on Public Procurement 2011; United Nations (UN) e-Procurement Initiative in 2014 and the World Bank's Procurement Framework will be of significant important in order to improve e-procurement in Tanzania. Also, there are framework of e-contract and trans-border flows of data which are stipulated differently between local laws and

the current United Nations Convention on the Use of Electronic Communication in International Contracts principles on the Use of Electronic Communication in Contracts in order to avoid ambiguity in statutory interpretation between the domestic law and international regulations. The ratification will be of support as this need to be done in e-procurement area due to the facts that the cross-border nature of e-procurement and its component of one country may have an impact on other countries.

There is a need for government to enshrine procurement in constitution. The public procurement is the cornerstone of sound fiscal management. It constitutes a large percentage of government business especially in building, roads infrastructure and delivery of goods and services. Also, all governments in the world spend large sums of their annual budgets in public procurement. Therefore, this function should be considered in constitution because the constitution is grand norms of the country and the functions with valuable outcome in country should also be given serious note in the constitution as United Republic of Kenya has done.

There is a need for government to join with Information Systems Audit and Control Association (ISACA) which links with organization-wide risk supervision concepts and methods such as Enterprise Risk Management Integrated Framework of the Committee of Sponsoring Organizations of the Treadway Commission and ISO 31000 in order to control or eliminate the procurement and security risks in e-procurement. There is a need for the government to develop educational initiatives for both e-procurement stakeholders on their rights, obligations and ways of protecting of risks like financial risks, security and regulatory challenges. This

should be incorporated in the new regulation initiatives so that a special department will be committed to educate all stakeholders over the country. The education advocacy may be offered in form of banners through websites and other visual means such as audios, blogs, social media and you tube videos.

#### **7.4.2 Specific Recommendations**

There is a need to establish a software licensing authority. The current situation in Tanzania lacks a regulatory body for software. Software is very important for managing the whole e-procurement from the planning stage of procurement, signing of contract to payment stages. Thus, the presence of the software control authority shall help to avoid the security risk, operational costs, expertise and non-standard software.

Furthermore, the government needs to extend cooperation with private sector and organisations like TCRA and REA in order to manage problem of lack of ICT infrastructure. For example, there are no adequate IT specialists to manage IT activities, problem of reliable of electricity to support the ICT infrastructure such as consistent internet access, electricity and hardware. These are basic requirements for e-procurement. Without them e-procurement cannot function accurately and may result in delays, errors and frauds. Also, lack of the infrastructure limits the participation of suppliers who are in remote areas as they may not have means to access and use of e-procurement podia. TANESCO alone will not manage the problem despite the facts that they have contributed a lot in establishing infrastructure in the remote area.

There is a need of creation of risk management control mechanism in order to contain the financial risks and security threats of e-procurement cycles. This may be done through placement of information security, security governance, and education to all stakeholders of e-procurement, legal framework and enforcement, formation of public key infrastructure and or combination of both machineries. There is a need to have specific dispute mechanisms which address e-procurement transactions which fully connected with e-procurement portal. This will ease the dispute management. This mechanism should consider the specific and social factors surrounding e-procurement in Tanzania.

#### **7.5 Future Research Plan**

The electronic public procurement in Tanzania is still at initial stage. Therefore, the legal gaps identified in this study may not be all exhausted. Therefore, there is a need to do specific research studies to comprehend the identified gaps and others which have not been covered in this study, if any. Equally, as the present study is general, more specific research studies in various sectors is required. An additional area that requires future study is that of security issues on e-procurement. It is important to have an effective and universal system in Tanzania that may control violation of security in e-procurement.

Another area suggested for further research studies is that of e-contract management and e-signature in Tanzania. As our regulations are not adequate enough to regulate these components due to the risks associated with them. Therefore, there is a need to accommodate international laws and rules that favour ratification in Tanzania.



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