



# Are the Covid-19 Pandemic and Public Procurement ‘*Strange Bedfellows*’? An African Perspective

Ismail Abdi Changalima\*

## Abstract

The purpose of this article is to provide insights into how the Covid-19 pandemic has affected public procurement operations, and the role of public procurement during the pandemic. The article synthesises relevant literature on Covid-19 and public procurement in the African context. A review of literature from 2020 to 2022 was done to enrich the findings of the current article, which shows that the Covid-19 pandemic affected public procurement in the form of delays, malpractice, budget reallocations and supply disruptions. Furthermore, during the Covid-19 pandemic it was recommended that public procurement practices be more strategic through collaboration, and respond more quickly in obtaining vaccines and health supplies, which were critical in the prevention and treatment of related illnesses. The article provides several practical implications in terms of ensuring good governance, implementing regulatory frameworks for emergency procurement, improving collaboration among members of comparable regional organisations, and implementing Covid-19 preventative measures. Finally, because the current study’s scope is limited in terms of the selection of published articles and other relevant literature that give insights about the African continent during this period, future studies could be conducted to include literature from outside the African continent in order to broaden the scope of this current study.

**Keywords:** Africa; Covid-19; pandemic; procurement; public procurement

---

\* Department of Business Administration and Management, University of Dodoma, Dodoma, United Republic of Tanzania. Email: [changalima@gmail.com](mailto:changalima@gmail.com)

## Résumé

L'objectif de cet article est de donner un aperçu de la manière dont la pandémie de Covid-19 a affecté les opérations de passation des marchés publics et le rôle des marchés publics pendant la pandémie. L'article synthétise la littérature pertinente sur le Covid-19 et les marchés publics dans le contexte africain. Une revue de la littérature de 2020 à 2022 a été réalisée pour enrichir les conclusions de cet article, qui montre que la pandémie de Covid-19 a affecté les marchés publics avec des retards, des malversations, des réallocations budgétaires et ruptures d'approvisionnement. En outre, pendant la pandémie de Covid-19, il a été recommandé que les pratiques de passation des marchés publics soient plus stratégiques grâce aux collaborations et qu'elles réagissent plus rapidement à obtenir des vaccins et des fournitures sanitaires essentiels à la prévention et au traitement des maladies connexes. L'article fournit plusieurs incidences pratiques en ce qui concerne l'assurance d'une bonne gouvernance, de mise en œuvre de cadres réglementaires pour l'approvisionnement d'urgence, d'amélioration de la collaboration entre les membres d'organisations régionales comparables et de mise en œuvre de mesures préventives contre le Covid-19. Enfin, comme la portée de l'étude actuelle est limitée en termes de sélection des articles publiés et d'autres documents pertinents qui donnent un aperçu du continent africain pendant cette période, de futures études pourraient être menées pour inclure la littérature hors continent africain afin d'élargir la portée de la présente étude.

**Mots-clés :** Afrique ; Covid-19 ; pandémie ; achats ; marchés publics

## Introduction

Public procurement can be defined as the function of governments or other public-sector organisations associated with acquiring goods and services (Thai 2001; Uyarra and Flanagan 2010). The literature on public procurement is divided into two streams. The first identifies public procurement as a critical area of business research (Fourie and Malan 2020; Harland *et al.* 2019; Holma *et al.* 2021; Morley 2021). The second classifies it as a component of public administration (Mazibuko 2021; Snider and Rendon 2012; Trammell, Abutabenjeh and Dimand 2020). Thus, public procurement is considered one of the pillars of efficient and effective public administration due to the significant monetary transfers between the government and private companies (Basheka and Auriacombe 2020). It should also be noted that the function involves the acquisition of goods and services and works to facilitate government operations in carrying out its responsibilities to its citizens.

Globally, in 2017 the amount spent on public procurement operations accounted for more than 20 per cent of the world's total expenditure (approximately 12 per cent of GDP in OECD countries) (OECD 2019). In 2020, it accounted for approximately 17 per cent of GDP of OECD countries (OECD 2021). Public procurement expenditure makes up more than 70 per cent of developing-country budgets (Ambe 2019) and approximately 30 per cent of GDP in some African countries (Djankov, Islam and Saliola 2016). The importance of public procurement is determined not only by the amount of funds allotted to the function but also by the number of public procurement reforms put in place to improve the efficiency and effectiveness of public procurement operations. The function's role is to ensure national economic development and regional development (Changalima, Mushi and Mwiseje 2021; Fourie and Malan 2020; Preuss 2011; Zabala-Iturriagoitia 2022).

The Covid-19 pandemic has affected most parts of the world in various ways (Akrofi and Antwi 2020; Ayanlade and Radeny 2020; Gautam and Hens 2020; Granich, Gupta and Williams 2022; Kamel and Mousa 2020; Siringi 2022; Susilawati, Falefi and Purwoko 2020; Yadav and Iqbal 2021), which necessitated that almost all countries develop mechanisms to at least survive the pandemic. Even though countries have struggled throughout the pandemic, the World Health Organization (WHO) has remained steadfast in its commitment to ensuring that safety and health precautions are followed by communities worldwide. Furthermore, researchers and academics have played an important role in keeping the community up to date by responding to special issues and granting free access to journal articles and other literature about the pandemic. Such efforts have produced a strand of literature relating to the Covid-19 pandemic and procurement and supply-chain operations globally (Handfield *et al.* 2020; Harland 2021; Sadiq and Kessa 2020; Van Hoek 2021).

On 14 February 2020, Egypt became the first country in Africa to register a case of Covid-19 (Akrofi and Antwi 2020; Gilbert *et al.* 2020). Since then, there have been many deaths and much devastating news related to Covid-19 across the continent (Acquaah, Namatovu and Kiggundu 2021). The pandemic in African countries has not only had an impact on their economy and business operations (Mayala 2021; Takyi and Bentum-Ennin 2021), but also on most government activities (Mbunge 2020; Mukushwa, Mapuva and Mutema 2021). Although procurement in the public sector operates similarly to other government operations, the procurement function has remained critical throughout the pandemic. Before the pandemic, vaccines unrelated to Covid-19 were procured in

the Middle East and North Africa region for example (Jumaan *et al.* 2013; Kaddar *et al.* 2019). But procurement in the health sector increased in 2019, and in OECD countries expanded to about 29.3 per cent of public procurement expenditure (OECD 2021). The increase has been attributed to the impact of Covid-19 on countries around the world, resulting in increased procurement operations in the healthcare sector.

Since public procurement supports government functions and local, national, regional and international development (Harland *et al.* 2013), this article aims to look into how the Covid-19 pandemic has affected public procurement as an important tool for regional development and how public procurement in Africa plays a crucial role in pandemics like that of Covid-19. Therefore, this study synthesises literature that examines points of intersection between the Covid-19 pandemic and public procurement operations on the African continent. By doing so, the study aims to provide research-based evidence on public procurement and the Covid-19 pandemic, particularly in Africa, where such studies are scarce. As a result, the study fills important gaps in the existing body of knowledge about the Covid-19 pandemic and public procurement. Furthermore, public organisations in most African countries could benefit from the lessons learned about the roles played by public procurement in pandemics like Covid-19 and how the Covid-19 pandemic has affected public procurement. This might help them navigate the pandemic and the post-Covid-19 era with greater awareness of their options.

The remainder of this article is organised as follows. The next section provides a conceptual overview of the relevant concepts. The article then presents the methods, succeeded by the main results and discussion. Conclusions and study implications follow and the article ends with a discussion of the study's limitations and future research directions.

## **Conceptual Overview of Key Concepts**

### ***Public Procurement***

Public procurement is defined as the acquisition of goods, services and works by accredited public organisations in order to improve government activities, such as providing needed services to the public (Changalima, Mchopa and Ismail 2022). Because it is a government function, public procurement is thought to be important for the development of national economies by contributing to economic development. Public procurement expenditure is high in developed and developing countries (Ambe 2019; Djankov *et al.* 2016; OECD 2019). The monetary value of public

expenditure on procurement activities raises academic interest in a variety of public procurement areas in various contexts. As a result, there are literature streams on public procurement performance (Changalima, Mchopa and Ismail 2022; Changalima and Ismail 2019; Kiage 2013), small- and medium-enterprise participation in public procurement (Namagembe, Mpeera and Kalid 2021; Siwandeti *et al.* 2021), and value for money in public procurement (Changalima, Ismail and Mwiseje 2022; Mchopa 2015; Mchopa *et al.* 2014; Mwiseje and Changalima 2020; Panga, Mchopa and Kazungu 2015). These studies show that the function of public procurement remains an important research theme for studies on the African continent.

### ***The Covid-19 Pandemic***

Covid-19 is a virus-borne infectious disease caused by the SARS-CoV-2 virus (Ciotti *et al.* 2020; Lone and Ahmad 2020). Because the effects of its outbreak have direct and indirect effects on human interactions, the pandemic has disrupted the world in various domains of human life (Amani and Ismail 2022; Ayanlade and Radeny 2020; Yadav and Iqbal 2021), such as business, the economy, management, and health and social aspects. However, given the scarcity of evidence of links between public procurement and the Covid-19 pandemic, the current study adds an important piece of evidence to the literature on the effects of the pandemic on human life domains.

### **Methods**

Specifically, the author of this review paper conducted a review of journal articles and other relevant literature in relation to the points of intersection between the Covid-19 pandemic and public procurement practices in Africa. In order to gather relevant literature, the researcher used the same methodology as in previous studies (Changalima, Ismail and Mchopa 2021; Osei-Kojo, Bawole and Sakyi 2020). These studies describe the methodological aspects of conducting a literature review in great detail. Therefore, specific steps were followed:

1. First, keywords were identified and used to locate relevant literature. Thus, a desktop search was conducted, looking for relevant literature through Google Scholar under the terms 'Covid-19 pandemic and procurement', 'public procurement and Covid-19 in Africa', 'Covid-19 pandemic in Africa', 'public procurement role in Covid-19 in Africa' and 'public procurement in Africa during Covid-19'. Through these key terms, the study was able to identify relevant literature in relation to the general objective of the study. In addition, the review included literature and other scholarly works published up to 2022.

2. Second, eligibility criteria were considered. The search included literature that contained all or some of the key terms and text words that were relevant to the study. Typically, studies that focus on literature reviews include eligibility criteria which ensure that the literature reviewed is relevant to the study's objective and that it is excluded if the criteria are not met.
3. The third step is reporting the eligibility criteria. These included literature in English as the language of publication. Journal articles were the most-considered publication outputs in the review because they had been peer reviewed before being published. The criteria also included literature published by African scholars or published in publications that specialised in information about the African continent. In this aspect, information related to authors and published titles was first checked to see if it met the aims of the study.
4. Lastly, the analytical strategy under which the study identified and discussed themes that were related to the objective of the study was considered. Two groups of themes were identified. The first included the effects of the Covid-19 pandemic on public procurement under 'How does the Covid-19 pandemic affect public procurement operations?'. The second group included literature that addressed the role of public procurement in the Covid-19 pandemic under 'What are the public procurement responses during the Covid-19 pandemic?'

## **Results and Discussion**

The results and discussion of literature pertaining to Africa in terms of public procurement, as well as the Covid-19 pandemic, are presented in this section. The findings and discussions relate to two themes. The first discusses how the Covid-19 pandemic affects public procurement operations, while the second section discusses public procurement's role during the Covid-19 pandemic. Table 1 contains a summary of the main findings.

### ***How does the Covid-19 Pandemic Affect Public Procurement Operations?***

Undoubtedly, the Covid-19 epidemic impacted on the operations of procurement and supply-chain organisations around the globe. In African countries, procurement operations in the public sector have been affected similarly to other countries. Therefore, this part presents the effects of the Covid-19 pandemic on public procurement operations as reported across streams of literature in several African countries.

### *Insufficient level of transparency and openness*

During the Covid-19 pandemic, it was observed that public procurement procedures were not as transparent as they should have been (Bangalee and Suleman 2020; Munzhedzi 2021). Transparency and openness in procurement relates to aspects of the procurement process and activities that stakeholders must observe in order to provide feedback on the procurement proceedings. Due to the reported urgency of procurements by buying organisations during the Covid-19 pandemic, these aspects were mostly not observed at the required levels. Regrettably, there has been an unsatisfactory level of transparency and openness in public procurement, given that public procurement in general is characterised by procedures. When procurement procedures in the public sector are not followed, transparency and openness are not practised to their full potential, which can lead to problems such as favouritism, a lack of due diligence and procurement audit inquiries. Therefore, the need for transparency in public procurement procedures is critical, as transparency allows the general public to be more informed about the procurement undertakings of their respective public authorities (Ndebele and Mdlalose 2021).

### *Misconduct in the emergency procurement of goods and services*

Ozor and Nyambane (2020) reported that when the Covid-19 pandemic broke out it exposed flaws in the procurement policies of most countries. Their study included cases from Côte d’Ivoire, Ghana, Kenya, Malawi, Nigeria, Senegal, South Africa, Tanzania, Uganda and Zambia. Also, Covid-19 fostered corruption in health procurement. However, this is not covered in this review, which focuses instead on situations of emergency procurement. The purchase of goods or services that is made unexpectedly due to a condition that requires a buyer to act immediately to protect life, health or the function of an organisation is referred to as ‘emergency procurement’. In this respect, the acquisition of goods and services in emergency circumstances demands situations in which the standard procurement procedures are overlooked during implementation.

The arrival of the Covid-19 pandemic prompted responses from several African governments, which included directives to follow emergency procurement procedures (Mantzaris and Ngcamu 2020; Mbandlwa and Netswera 2021). In most countries, these procedures existed before the Covid-19 pandemic. This is the case in Tanzania, for example. Section 65 of the Public Procurement Act (PPA) No. 7 of 2011 provides procedures

and scenarios in which buyers can procure in an emergency situation (URT 2011). The literature also emphasised the response of developing an emergency procurement strategy during the pandemic (Mathiba 2020)

Most of the processes that were streamlined in order to be sped up decreased the likelihood of competitiveness for tenderers in procurement opportunities. In general, public procurement is characterised by intense competition; a lack of competition has a negative impact on the outcomes of procurement operations (Nemec *et al.* 2020, 2021; Wanyonyi and Muturi 2015). Therefore, the rate at which suppliers and bidders participate in public procurement opportunities following properly advertised and fairly treated opportunities is related to the level of competition in procurement. However, it has been reported that under emergency circumstances, procurement regulations can be manipulated to allow purchases to be made without advertising, especially in emergency conditions like the Covid-19 pandemic (Munzhedzi 2021).

There is a strand of literature which shows that procurement misconduct in Africa was reported during the Covid-19 pandemic (Arkorful *et al.* 2021; Mantzaris and Pillay 2020; Mathiba 2020; Mbandlwa and Netswera 2021). Though much of the misconduct was associated with the Covid-19 pandemic, some of this was due to an unexpected increase in demand for requirements, which resulted in maverick buying. There was also a lack of integrity among practitioners and substandard quality products were supplied to markets. Misconduct resulted, too, in an increase in fraudulent and corrupt practices in procurement operations. Due to the fact that meeting the emergency of Covid-19 necessitated reducing the rigour of the legislative framework (Mlambo and Masuku 2020; Van Schalkwyk 2021), on some occasions deviations from standard operating procedures and codes of conduct led to malpractice that had a negative impact on organisational effectiveness and saw the loss of public funds.

Covid-19-related corruption was observed throughout Africa, primarily in the procurement sector. A 2021 audit in Cameroon, for example, discovered the misappropriation of nearly USD 333 million; in South Africa, there was a probable inflation of government contracts for the acquisition of medical equipment worth USD 900 million (Aikins 2022). Mantzaris and Pillay (2020) reveal that duplicate payments were made to companies, among other fraudulent practices in the tendering process. Similarly, corrupt practices that had an impact on the operations of organisations were observed (Dzinamarira *et al.* 2021; Mantzaris and Ngcamu 2020). These studies show that misconduct during the Covid-19 pandemic, particularly corrupt procurement practices, cost most African governments money.



### *Delays in completion of ongoing projects*

In general, public procurement efforts focus on construction projects, because this category of procurement spends a large amount of money and involves a large volume of procurement (Changalima 2016; Mchopa 2020). A variety of factors, such as the availability of funds, labour and other resources, typically influence construction projects. Circumstances such as the pandemic contribute to the delayed completion of projects. Such negative consequences have been especially severe since the start of the pandemic. For example, in South Africa, the Covid-19 pandemic outbreak had a negative effect on the survival rate of construction projects (Aigbavboa *et al.* 2022). Similar effects were observed in the construction industry in Ghana (Agyekum, Kukah and Amudjie 2022; Amoah, Bamfo-Agyei and Simpeh 2021) and Zimbabwe (Zhanda 2020).

Social distancing and lockdowns are two of the best-known practices and mechanisms used to combat the spread of the Covid-19 pandemic. These mechanisms helped to slow the pandemic's spread, but they had a negative economic impact. It was determined that a lack of labour and the suspension of construction projects impacted the completion time of construction projects. These setbacks hampered the ability of projects to achieve their objectives. The effectiveness of government procurement outcomes is critical because through infrastructure construction governments provide services to citizens.

### *Supply disruptions*

Global supply-chain disruptions occurred in a variety of industries across the globe during the pandemic. These interruptions negatively affected sectors that rely on and are associated with the purchase of goods and materials, the transportation and warehousing of goods, international purchases and the construction industry. During the pandemic, supply chains experienced vulnerabilities, necessitating the development of resilience in order to control the divested impacts (Mchopa *et al.* 2020). Supply shocks were extensively reported in the agricultural supply chain, including the food supply (Arouna *et al.* 2020; Nchanji *et al.* 2021), but supply interruptions also had an impact on the public procurement function. According to Munzhedzi and Phago (2020), disruptions associated with the Covid-19 outbreak mean that the majority of municipalities in South Africa will not be able to withstand the consequences of the pandemic. Because public procurement necessitates the acquisition of goods and services from third-party vendors, supply disruptions have an impact on its function. Supply

disruption events can occur in a variety of areas, including manufacturing, sales outlets and distribution activities. These occurrences have been linked to the lengthening of lead times.

### *Reallocation of public expenditure budgets*

There is a stream of literature which shows that budgets for government expenditure were redirected in most African countries, including Tanzania (Haji 2021), South Africa (Burger and Calitz 2021; De Villiers *et al.* 2020) and Kenya (Barasa *et al.* 2021), and that the reallocation of funds was obtained from savings. These reallocations were related to handling unanticipated expenses that developed as a result of the Covid-19 pandemic. Reallocating funds that were previously budgeted for public procurement expenditures affected public procurement functions. It was reported that in Ethiopia during the Covid-19 pandemic most hospitals did not have ready budgets to procure personal protective equipment for health workers (Ejeta *et al.* 2021). Budget constraints affected the overall outcome of procurement activities in most hospitals and government organisations.

### ***What are the public procurement responses during the Covid-19 pandemic?***

The importance of procurement activities during the Covid-19 pandemic appears to have increased, resulting in a growth in the reputation of the procurement profession among practitioners.

### *Procurement of vaccines and other health supplies*

The procurement function has played an active role throughout the pandemic, particularly in the procurement of vaccines, medical supplies and other health-related products. These medical and other related health supplies are used for treatment and prevention purposes. For example, the government of Angola purchased masks, gloves, hand-sanitisers (disinfectants) and infrared thermometers, all of which were regarded as protective and important supplies in the fight against the Covid-19 pandemic, by increasing infection prevention and control procedures (Ozili 2022). Furthermore, it was recommended that Covid-19 diagnostic tests be purchased in order to increase testing capacity (Makurumidze 2020). Diagnostic tests that are used to detect diseases, such as *in vitro* diagnostics for Covid-19 testing (Ondoa *et al.* 2020), were among the medical supplies utilised during the pandemic. Other supplies included hospital beds or

cots designed for patients who are hospitalised or in need of some type of healthcare while they are in the hospital. The demand for hospital cots rose as a result of the increased demand for intensive care units in hospitals throughout Africa. Also, procurement of personal protective equipment for workers in healthcare facilities was given top priority during the pandemic (Makurumidze 2020).

Public procurement of vaccines during the pandemic was done in several countries in Africa, including South Africa (Bangalee and Suleman 2020) and Zimbabwe (Maketo and Mutizwa 2021). Though challenges associated with procured vaccines were reported, such as vaccine hesitancy, which is linked to a rejection or delay in the acceptance of vaccines (Afolabi and Ilesanmi 2021; Cooper, Van Rooyen and Wiysonge 2021), this is not the subject of the present research. African countries were urged to be wary and alert when purchasing vaccinations to avoid being duped by fake vaccines. Policy-makers were also urged to ensure that all aspects of the vaccines had been thoroughly considered before approval and rollout (Mwendwa *et al.* 2021).

### *Promoting strategic procurement practices*

There was a rise in strategic procurement practices during the Covid-19 pandemic, which may be attributed to the fact that the onset of the pandemic led to a re-examination of the procurement function, which is now being considered in respect of the long-term components of the goals of its organisation. Strategic procurement practices are necessary during times of emergency and, according to the literature, some strategic procurement practices will need to be restructured as a result of the Covid-19 pandemic (Odongo and Panga 2021). Laryea and Watermeyer (2014) opined that collaborative and integrated procurement approaches adopted by organisations centre on the strategic procurement approach. The African Centre for Disease Control (CDC) has worked tirelessly to ensure that the continent is focused on bringing together various local and international organisations, as well as political leaders, to mobilise resources for increasing the effectiveness of vaccine procurement and accelerating Covid-19 vaccine trials throughout Africa. The goal of this effort is to forge partnerships with and develop the capacity of key government institutions and networks (Hagan Jr. *et al.* 2021). All these are practices under collaborative procurement, which are regarded as facets of strategic procurement.

**Table 1:** Key themes of the reviewed literature

SUB-THEMES	ASPECTS	SURVEYED LITERATURE
Effects of the Covid-19 pandemic on public procurement	Insufficient level of transparency and openness	Bangalee and Suleman (2020), Munzhedzi (2021), Ndebele and Mdlalose (2021)
	Misconduct in the emergency procurement of goods and services	Arkorful <i>et al.</i> (2021), Dzinamarira <i>et al.</i> (2021), Mantzaris and Ngcamu (2020), Mantzaris and Pillay (2020), Mathiba (2020), Mbandlwa and Netswera (2021), Mlambo and Masuku (2020), Munzhedzi (2021), Ozor and Nyambane (2020), Van Schalkwyk (2021)
	Delays in the completion of ongoing projects	Agyekum <i>et al.</i> (2022), Aigbavboa <i>et al.</i> (2022) Amoah <i>et al.</i> (2021), Mchopa (2020), Zhanda (2020)
	Supply disruptions	Arouna <i>et al.</i> (2020), Mchopa <i>et al.</i> (2020), Munzhedzi and Phago, (2020), Nchanji <i>et al.</i> (2021)
	Reallocation of public expenditure budgets	Barasa <i>et al.</i> (2021), Burger and Calitz (2021), De Villiers <i>et al.</i> (2020), Ejeta <i>et al.</i> (2021), Haji (2021)
The role of public procurement during the Covid 19 pandemic	Procurement of vaccines and other health supplies	Afolabi and Ilesanmi (2021), Bangalee and Suleman (2020), Maketo and Mutizwa (2021), Makurumidze (2020), Mwendwa <i>et al.</i> (2021), Ondoa <i>et al.</i> (2020)
	Promoting strategic procurement practices	Odongo and Panga (2021)

## Conclusions and Study Implications

### *Conclusions*

This article discusses some of the interactions that exist between public procurement and the Covid-19 pandemic, in terms of the pandemic's impact on public procurement operations and the role of public procurement during the pandemic. Clearly, African scholars and some journal outlets have done an excellent job of disseminating information about public procurement and Covid-19 pandemic impacts in a variety of ways. The findings of this article show that during the Covid-19 pandemic most African countries relied heavily on public procurement. However, some irregularities have been reported in connection with maverick purchases associated with emergency procurement. As a result, deliberate efforts must be made to

ensure that procurement practices in the public sector are considered during Covid-19 and other pandemics in such a way that the overall goal of public procurement operations is not jeopardised and that the function is used as a tool for combating the pandemic and other similar events during these times. This can be accomplished by establishing an appropriate framework for guiding public procurement activities in time-sensitive and emergency situations, ensuring proper requirement integration and forecasting accurate and reasonable future requirements.

### ***Managerial Implications***

Public procurement activities involve several practitioners within an outsized organisation. Users, procurement professionals, suppliers and the general public are examples of practitioners. According to the literature review, public procurement and the Covid-19 pandemic have interacted in a variety of ways. During the pandemic, the public procurement function played an important role and the pandemic affected most public procurement operations in African countries, according to reports. As a result, the study concludes that public procurement and the Covid-19 pandemic are linked 'strange bedfellows'.

Based on the findings of this article, four main managerial implications are pointed out.

1. First, the governments of most African countries could ensure that procurement activities within the public sector are organised so that malpractice is eliminated during times of urgency and emergency to reduce losses associated with poor procurement practices. This can be achieved by having a clear and well-understood regulatory framework for enhancing procurement operations in emergency and urgent situations. For instance, in Tanzania, the PPA No.7 of 2011 and its regulations stipulate procurement operations under an emergency and when procuring life-saving commodities. In this aspect, managers in public organisations could assist policy-makers in ensuring that there are national procurement guidelines to deal with procurement activities in situations like Covid-19 pandemic.
2. Second, African countries could integrate and collaborate in public procurement activities, particularly those countries that are part of similar regional groups, such as the East African Community (EAC) and the Southern African Development Community (SADC). As a result, the costs associated with acquiring supplies related to medical equipment could be significantly reduced, resulting in sizeable savings for governments. In addition, member states could share information about the availability of hospital supplies and use a common currency

when placing orders, thereby avoiding the additional costs associated with foreign currencies. Even though collaboration may not appear to be possible due to differences in procurement procedures between countries, it is possible in specific projects such as the procurement of healthcare supplies.

3. Third, most public procurement operations cover the entire range of activities, from identifying needs to the delivery of value to the general public. Since public procurement operations have been affected by the Covid-19 pandemic, managers in public-sector organisations should take into consideration the measures and efforts that have been put in place to combat the outbreak. Directives were issued by the WHO and other international organisations, emphasised by local authorities and implemented by procurement practitioners. As a result, activities such as meetings to review bids were affected by social distancing, which resulted in the increased use of information and communication technologies in procurement operations. Consequently, by following the policies and procedures in place for dealing with the Covid-19 pandemic, managers in public organisations could ensure the safety of their employees while also reducing the impact of the pandemic on public procurement operations.
4. Lastly, accountability among public procurement practitioners is required to guarantee that public procurement processes continue to provide good results during and beyond the Covid-19 outbreak. It should be noted that when it comes to good governance, public accountability is critical to the success of the process (Munzhedzi 2021). The attitude of being accountable in relation to actions taken by public officials is made easier by public accountability practices and policies. In this regard, the actions taken by public procurement officials during the Covid-19 pandemic, as well as the actions associated with the acquisition of goods and services during the pandemic, should be thoroughly scrutinised to ensure that wrongdoers are held accountable for their decisions.

### **Limitations and Directions for Future Research**

A literature review was the primary focus of this study because the goal was to synthesise the available literature concerning public procurement and the Covid-19 pandemic on the African continent. As a result, the scope of the current study is constrained by the selection of published articles and other literature relevant to the African continent. The study's scope is therefore limited in terms of the amount of literature synthesised to address the overall objective. Studies conducted in the form of literature reviews are also limited in that the selection of articles and literature to be included in the study is based on the subjective judgement of the researchers themselves (Trammell *et al.* 2020).

The criteria used were geared towards addressing the study's themes in terms of aspects of the African environment, which was the goal; however, the study is limited in this regard and thus future studies that include literature outside the African continent could be conducted to extend the current study. Furthermore, because the current research focuses on the intersection of public procurement and the Covid-19 pandemic, empirical evidence could be provided by quantifying the role of public procurement reforms in pandemics like Covid-19 and similar situations. Studies in these areas might provide insights that would supplement the current study by providing additional information.

## References

- Acquaah, M., Namatovu, R., and Kiggundu, M. N., 2021, INTRODUCTION TO THE SPECIAL ISSUE: Preliminary investigations into the Covid-19 pandemic and management in Africa, *Africa Journal of Management*, Vol. 7, No. 1, pp. 1–12. <https://doi.org/10.1080/23322373.2021.1882223>
- Afolabi, A. A., and Ilesanmi, O. S., 2021, Dealing with vaccine hesitancy in Africa: The prospective Covid-19 vaccine context, *Pan African Medical Journal*, Vol. 38, No. 3, pp. 1–7. <https://doi.org/10.11604/pamj.2021.38.3.27401>
- Agyekum, K., Kukah, A. S., and Amudjie, J., 2022, The impact of Covid-19 on the construction industry in Ghana: the case of some selected firms, *Journal of Engineering, Design and Technology*, Vol. 20, No. 1, pp. 222–244. <https://doi.org/10.1108/JEDT-11-2020-0476>
- Aigbavboa, C. O., Aghimien, D. O., Thwala, W. D., and Ngozwana, M. N., 2022, Unprepared industry meet pandemic: Covid-19 and the South Africa construction industry, *Journal of Engineering, Design and Technology*, Vol. 20, No. 1, pp. 183–200. <https://doi.org/10.1108/JEDT-02-2021-0079>
- Aikins, E. R., 2022, Corruption in Africa deepens the wounds of Covid-19. *Institute for Security Studies*. <https://issafrica.org/iss-today/corruption-in-africa-deepens-the-wounds-of-covid-19>
- Akrofi, M. M. C., and Antwi, S. H., 2020, Covid-19 energy sector responses in Africa: A review of preliminary government interventions, *Energy Research and Social Science*, Vol. 68, pp. 1–10. <https://doi.org/10.1016/j.erss.2020.101681>
- Amani, D., and Ismail, I. J., 2022, Investigating the predicting role of Covid-19 preventive measures on building brand legitimacy in the hospitality industry in Tanzania: Mediation effect of perceived brand ethicality, *Future Business Journal*, Vol. 8, No. 13, pp. 1–14. <https://doi.org/10.1186/s43093-022-00128-6>
- Ambe, I. M., 2019, The role of public procurement to socio-economic development, *International Journal of Procurement Management*, Vol. 12, No. 6, pp. 652–668. <https://doi.org/10.1504/IJPM.2019.102934>
- Amoah, C., Bamfo-Agyei, E., and Simpeh, F., 2021, The Covid-19 pandemic: the woes of small construction firms in Ghana, *Smart and Sustainable Built Environment*. <https://doi.org/10.1108/SASBE-02-2021-0025>

- Arkorful, V. E., Abdul-Rahaman, N., Ibrahim, H. S., and Arkorful, V. A., 2021, Fostering Trust, Transparency, Satisfaction and Participation Amidst Covid-19 corruption: Does the Civil Society Matter? – Evidence from Ghana, *Public Organisation Review*. <https://doi.org/10.1007/s11115-021-00590-w>
- Arouna, A., Soullier, G., Mendez del Villar, P., and Demont, M., 2020, Policy options for mitigating impacts of Covid-19 on domestic rice value chains and food security in West Africa, *Global Food Security*, Vol. 26, pp. 1–5. <https://doi.org/10.1016/j.gfs.2020.100405>
- Ayanlade, A., and Radeny, M., 2020, Covid-19 and food security in Sub-Saharan Africa: implications of lockdown during agricultural planting seasons, *Npj: Science of Food*, Vol. 4, No. 1, pp. 1–6. <https://doi.org/10.1038/s41538-020-00073-0>
- Bangalee, V., and Suleman, F., 2020, Access considerations for a Covid-19 vaccine for South Africa, *South African Family Practice*, Vol. 62, No. 1, pp. 1–4. <https://doi.org/10.4102/safp.v62i1.5152>
- Barasa, E., Kazungu, J., Orangi, S., Kabia, E., Ogero, M., and Kasera, K., 2021, Indirect health effects of the Covid-19 pandemic in Kenya: a mixed methods assessment, *BMC Health Services Research*, Vol. 21, No. 1, pp. 1–16. <https://doi.org/10.1186/s12913-021-06726-4>
- Basheka, B., and Auriacombe, C., 2020, Barriers to women's participation in public procurement in Africa: empirical evidence from Uganda, *The International Journal of Social Sciences and Humanity Studies*, Vol. 12, No. 2, pp. 222–306.
- Burger, P., and Calitz, E., 2021, Covid-19, Economic Growth and South African Fiscal Policy, *South African Journal of Economics*, Vol. 89, No. 1, pp. 3–24. <https://doi.org/10.1111/saje.12270>
- Changalima, I. A., 2016, Determinants of Value for Money in the Procurement of Works in Public Sector: A Survey of Selected Government Ministries in Dar es Salaam, Morogoro: Mzumbe University.
- Changalima, I. A., and Ismail, I. J., 2019, Analysis of the Relationship between Managerial Competencies and the Performance of Procurement Management Units in Public Sector: The Structural Equation Modelling Approach, *The International Journal of Business and Management*, Vol. 7, No. 4, pp. 155–161. <https://doi.org/10.24940/theijbm/2019/v7/i4/bm1904-039>
- Changalima, I. A., Ismail, I. J., and Mchopa, A. D., 2021, A review of the forms, rationale and challenges of supplier development in public procurement: lessons for public buyers in Tanzania, *Future Business Journal*, Vol. 7, No. 1, pp. 1–10.
- Changalima, I. A., Ismail, I. J., and Mwaiseje, S. S., 2022, Obtaining the best value for money through procurement planning: Can procurement regulatory compliance intervene? *Journal of Money and Business*, Vol. 2, No. 2, pp. 133–148. <https://doi.org/10.1108/JMB-11-2021-0056>
- Changalima, I. A., Mchopa, A. D., and Ismail, I. J., 2022, Supplier development and public procurement performance: Does contract management difficulty matter? *Cogent Business and Management*, Vol. 9, No. 1, 2108224. <https://doi.org/10.1080/23311975.2022.2108224>



- Changalima, I. A., Mushi, G. O., and Mwaiseje, S. S., 2021, Procurement planning as a strategic tool for public procurement effectiveness: Experience from selected public procuring entities in Dodoma city, Tanzania, *Journal of Public Procurement*, Vol. 21, No. 1, pp. 37–52. <https://doi.org/10.1108/JOPP-05-2020-0047>
- Ciotti, M., Ciccozzi, M., Terrinoni, A., Jiang, W.-C., Wang, C.-B., and Bernardini, S., 2020, The Covid-19 pandemic, *Critical Reviews in Clinical Laboratory Sciences*, Vol. 57, No. 6, pp. 365–388. <https://doi.org/10.1080/10408363.2020.1783198>
- Cooper, S., Van Rooyen, H., and Wysong, C. S., 2021, Covid-19 vaccine hesitancy in South Africa: How can we maximize uptake of Covid-19 vaccines? *Expert Review of Vaccines*, Vol. 20, No. 8, pp. 921–933. <https://doi.org/10.1080/14760584.2021.1949291>
- De Villiers, C., Cerbone, D., and Van Zijl, W., 2020, The South African government's response to Covid-19, *Journal of Public Budgeting, Accounting and Financial Management*, Vol. 32, No. 5, pp. 797–811. <https://doi.org/10.1108/JPBAFM-07-2020-0120>
- Djankov, S., Islam, A. M., and Saliola, F., 2016, How large is public procurement in developing countries? Peterson Institute for International Economics.
- Dzinamarira, T., Mukwenha, S., Eghtessadi, R., Cuadros, D. F., Mhlanga, G., and Musuka, G., 2021, Coronavirus Disease 2019 (Covid-19) Response in Zimbabwe: A Call for Urgent Scale-up of Testing to meet National Capacity, *Clinical Infectious Diseases*, Vol. 72, No. 10, e667–e674. <https://doi.org/10.1093/cid/ciaa1301>
- Ejeta, F., Feyisa, D., Kebede, O., Mechessa, D. F., Zewudie, A., Mamo, Y., Regasa, T., and Abebe, L., 2021, Logistics Management of Covid-19 Personal Protective Equipment and its Challenges at Public Hospitals of Southwest Ethiopia: An Integrated Quantitative and Qualitative Study, *International Journal of Medical Research and Health Sciences*, Vol. 10, No. 7, pp. 178–185.
- Fourie, D., and Malan, C., 2020, Public procurement in the South African economy: Addressing the systemic issues, *Sustainability (Switzerland)*, Vol. 12, No. 20, pp. 1–23. <https://doi.org/10.3390/su12208692>
- Gautam, S., and Hens, L., 2020, Covid-19: Impact by and on the environment, health and economy, *Environment, Development and Sustainability*, Vol. 22, No. 6, pp. 4953–4954. <https://doi.org/10.1007/s10668-020-00818-7>
- Gilbert, M., Pullano, G., Pinotti, F., Valdano, E., Poletto, C., Boëlle, P. Y., D'Ortenzio, E., Yazdanpanah, Y., Eholie, S. P., Altmann, M., Gutierrez, B., Kraemer, M. U. G., and Colizza, V., 2020, Preparedness and vulnerability of African countries against importations of Covid-19: A modelling study, *The Lancet*, Vol. 395, No. 10227, pp. 871–877. [https://doi.org/10.1016/S0140-6736\(20\)30411-6](https://doi.org/10.1016/S0140-6736(20)30411-6)
- Granich, R., Gupta, S., and Williams, B., 2022, Human immunodeficiency virus funding and access to treatment in sub-Saharan Africa, *International Journal of STD and AIDS*, Vol. 33, No. 1, pp. 4–17. <https://doi.org/10.1177/095646242111042287>

- Hagan Jr., J. E., Ahinkorah, B. O., Seidu, A.-A., Ameyaw, E. K., and Schack, T., 2021, Africa's preparedness towards Covid-19 vaccines: Demand and acceptability challenges, *Current Research in Behavioral Sciences*, Vol. 2, pp. 1–5. <https://doi.org/10.1016/j.crbeha.2021.100048>
- Haji, S. H. H., 2021, The Effects of Covid-19 Pandemic on the Government Revenue in the Extractive Industry in Tanzania, *Journal of Economics, Management and Trade*, Vol. 27, No. 3, pp. 12–29. <https://doi.org/10.9734/jemt/2021/v27i330332>
- Handfield, R. B., Finkenstadt, D. J., Schneller, E. S., Godfrey, A. B., and Guinto, P., 2020, A Commons for a Supply Chain in the Post-Covid-19 Era: The Case for a Reformed Strategic National Stockpile, *Milbank Quarterly*, Vol. 98, No. 4, pp. 1058–1090. <https://doi.org/10.1111/1468-0009.12485>
- Harland, C., 2021, Discontinuous Wefts: Weaving a More Interconnected Supply Chain Management Tapestry, *Journal of Supply Chain Management*, Vol. 57, No. 1, pp. 27–40. <https://doi.org/10.1111/jscm.12249>
- Harland, C., Telgen, J., and Callender, G., 2013, International research study of public procurement, in Harland, C., Nassimbeni, G. and Schneller, E. *The SAGE Handbook of Strategic Supply Management*, New York: Sage Publications Ltd, pp. 374–401. <https://doi.org/10.4135/9781446269886.n16>
- Harland, C., Telgen, J., Callender, G., Grimm, R., and Patrucco, A. S., 2019, Implementing Government Policy in Supply Chains: An International Coproduction Study of Public Procurement, *Journal of Supply Chain Management*, Vol. 55, No. 2, pp. 6–25. <https://doi.org/10.1111/jscm.12197>
- Holma, A.-M., Bask, A., Laakso, A., and Andersson, D., 2021, Conceptualizing the supplier switching process: an example from public procurement, *Journal of Business and Industrial Marketing*. <https://doi.org/10.1108/JBIM-06-2021-0301>.
- Jumaan, A. O., Ghanem, S., Taher, J., Braikat, M., Awaidy, S. Al, and Dbaiibo, G. S., 2013, Prospects and challenges in the introduction of human papillomavirus vaccines in the extended Middle East and North Africa Region, *Vaccine*, Vol. 31, Section 6, G58–G64. <https://doi.org/10.1016/j.vaccine.2012.06.097>
- Kaddar, M., Saxenian, H., Senouci, K., Mohsni, E. and Sadr-Azodi, N., 2019, Vaccine procurement in the Middle East and North Africa region: Challenges and ways of improving program efficiency and fiscal space, *Vaccine*, Vol. 37, No. 27, pp. 3520–3528. <https://doi.org/10.1016/j.vaccine.2019.04.029>
- Kamel, M. A., and Mousa, M. E. S., 2020, Measuring operational efficiency of isolation hospitals during Covid-19 pandemic using data envelopment analysis: A case of Egypt, *Benchmarking*, Vol. 28, No. 7, pp. 2178–2201. <https://doi.org/10.1108/BIJ-09-2020-0481>
- Kiage, J. O., 2013, Factors Affecting Procurement Performance: A Case of Ministry of Energy, *International Journal of Business and Commerce*, Vol. 3, No. 1, pp. 54–70.
- Laryea, S., and Watermeyer, R., 2014, Innovative construction procurement at Wits University, *Proceedings of Institution of Civil Engineers: Management, Procurement and Law*, Vol. 167, No. 5, pp. 220–231. <https://doi.org/10.1680/mpal.14.00008>

- Lone, S. A., and Ahmad, A., 2020, Covid-19 pandemic—an African perspective, *Emerging Microbes and Infections*, Vol. 9, No. 1, pp. 1300–1308. <https://doi.org/10.1080/22221751.2020.1775132>
- Maketo, J. P., and Mutizwa, B., 2021, Dynamics and Trends in Vaccine Procurement and Distribution in Zimbabwe, *International Journal of Humanities, Management and Social Science*, Vol. 4, No. 2, pp. 62–75.
- Makurumidze, R., 2020, Coronavirus-19 disease (Covid-19): A case series of early suspected cases reported and the implications towards the response to the pandemic in Zimbabwe, *Journal of Microbiology, Immunology and Infection*, Vol. 53, No. 3, pp. 493–498. <https://doi.org/10.1016/j.jmii.2020.04.002>
- Mantzaris, E., and Ngcamu, B. S., 2020, Municipal Corruption in the Era of a Covid-19 Pandemic: Four South African Case Studies, *Journal of Public Administration*, Vol. 55, Nos. 3–1, pp. 461–479.
- Mantzaris, E., and Pillay, P., 2020, Covid-19, Health Systems Corruption, Economic Priorities and Poverty: The Case of South Africa, *Alternation—Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa*, SP Vol. 32, No. 1, pp. 252–274. <https://doi.org/10.29086/2519-5476/2020/sp32a10>
- Mathiba, G., 2020, 'Corruption, Public Sector Procurement and Covid-19 in South Africa: Negotiating the New Normal', *Journal of Public Administration Research*, Vol. 55, No. 4, pp. 642–661.
- Mayala, N. M., 2021, Covid-19's Impact on Tanzania's Economy and Key Sector Prospects, in Baporikar, N., ed., *Handbook of Research on Sustaining SMEs and Entrepreneurial Innovation in the Post-Covid-19 Era* (1st ed.), IGI Global. pp. 106–121. <https://doi.org/10.4018/978-1-7998-6632-9.ch006>
- Mazibuko, G., 2021, The Relevance of Procurement in Public Administration: A South African Perspective, *Journal of Social and Development Sciences*, Vol. 11, No. 4, pp. 26–34. [https://doi.org/10.22610/jsds.v11i4\(s\).3157](https://doi.org/10.22610/jsds.v11i4(s).3157)
- Mbandlwa, Z. and Netswera, F., 2021, The effect government supply chain processes have on the procurement of Covid-19 personal protective equipment, *Ilkogretim Online*, Vol. 20, No. 4, pp. 1782–1790.
- Mbunge, E., 2020, Effects of Covid-19 in South African health system and society: An explanatory study, *Diabetes and Metabolic Syndrome: Clinical Research and Reviews*, Vol. 14, No. 6, pp. 1809–1814. <https://doi.org/10.1016/j.dsx.2020.09.016>
- Mchopa, A. D., 2015, Integrating contract management practices into the achievement of value for money in Tanzania Public Procurement: Evidence from selected procuring entities in Moshi Municipality, *Journal of Public Procurement*, Vol. 15, No. 2, pp. 129–149. <https://doi.org/10.1108/jopp-15-02-2015-b001>
- Mchopa, A. D., 2020, Applicability of Force Account Approach in Procurement of Works in Tanzania, *Journal of International Trade, Logistics and Law*, Vol. 6, No. 2, pp. 137–143.
- Mchopa, A. D., Njau, E., Ruoja, C., Huka, H., and Panga, F. P., 2014, The Achievement of Value for Money in Tanzania Public Procurement: A Non-Monetary Assessment Approach, *International Journal of Management Sciences*, Vol. 3, No. 7, pp. 524–533.

- Mchopa, A. D., William, J. M., and Kimaro, J. M., 2020, Global Supply Chains Vulnerability and Distortions Amidst Covid19 Pandemic: Antecedents for Building Resilience in Downstream Logistics, *Journal of Co-Operative and Business Studies*, Vol. 5, No. 2, pp. 74–83.
- Mlambo, V. H., and Masuku, M. M., 2020, Governance, corruption and Covid-19: The final nail in the coffin for South Africa's dwindling public finances, *Journal of Public Administration*, Vol. 55, No. 3, pp. 549–565.
- Morley, A., 2021, Procuring for change: An exploration of the innovation potential of sustainable food procurement, *Journal of Cleaner Production*, Vol. 279, pp. 1–8. <https://doi.org/10.1016/j.jclepro.2020.123410>
- Mukushwa, Z. C., Mapuva, J., and Mutema, E. P., 2021, The Practice of Participatory Budgeting during the Covid-19 Pandemic in Zimbabwe's Local Government Sector: A Case of Chitungwisa Municipality, *The African Review*, Vol. 48, No. 2, pp. 597–620. <https://doi.org/10.1163/1821889x-12340057>
- Munzhedzi, P. H., 2021, Analysing the application of governance principles in the management of Covid-19 in South Africa: Lessons for the future, *Africa's Public Service Delivery and Performance Review*, Vol. 9, No. 1, pp. 1–8. <https://doi.org/10.4102/apsdpr.v9i1.490>
- Munzhedzi, P. H., and Phago, K., 2020, Necessitating a Germane Developmental Local Government Agenda in South Africa: A Post Covid-19 Contemplation, *African Journal of Governance and Development*, Vol. 9, No. 1.1, pp. 181–199.
- Mwaiseje, S. S., and Changelima, I. A., 2020, Individual Factors and Value for Money Achievement in Public Procurement: A Survey of Selected Government Ministries in Dodoma Tanzania, *East African Journal of Social and Applied Sciences (EAJ-SAS)*, Vol. 2, No. 2, pp. 50–58.
- Mwendwa, P., Githui, S., Marete, E., and Kroll, T., 2021, Covid-19 and vaccines in Africa: A descriptive and thematic analysis of Twitter content, *HRB Open Research*, Vol. 4, No. 43, pp. 1–8. <https://doi.org/10.12688/hrbopenres.13255.1>
- Namagembe, S., Mpeera, J. N. and Kalid, A., 2021, An examination of SME involvement in public procurement underbid lot sizing, *Journal of Public Procurement*, Vol. 21, No. 4, pp. 370–398. <https://doi.org/10.1108/JOPP-04-2020-0031>
- Nchanji, E. B., Lutomia, C. K., Chirwa, R., Templer, N., Rubyogo, J. C., and Onyango, P., 2021, Immediate impacts of Covid-19 pandemic on bean value chain in selected countries in sub-Saharan Africa, *Agricultural Systems*, Vol. 188, pp. 1–13. <https://doi.org/10.1016/j.agsy.2020.103034>
- Ndebele, N. C., and Mdlalose, M. Z., 2021, Transparency in Local Government Procurement During the Era of Covid-19 in South Africa, *Journal of Public Administration*, Vol. 56, No. 3, pp. 539–550.
- Nemec, J., Kubák, M., Donin, G., and Kotherová, Z., 2021, Efficiency of public procurement in the Czech and Slovak health care sectors, *Transylvanian Review of Administrative Sciences*, Vol. 17, No. 62, pp. 115–133. <https://doi.org/10.24193/tras.62E.7>
- Nemec, J., Kubák, M., Krapek, M., and Horehajova, M., 2020, Competition in Public Procurement in the Czech and Slovak Public Health Care Sectors, *Healthcare*, Vol. 8, No. 3, pp. 1–14. <https://doi.org/10.3390/healthcare8030201>

- Odongo, K. O., and Panga, F. P., 2021, Refining Strategic Procurement and Supply Chain Management for post-Covid-19 Resilience: A Systematic Review, *The Sub Saharan Journal of Social Sciences and Humanities*, Vol. 1, No. 1, pp. 56–65.
- Ondoa, P., Kebede, Y., Loembe, M. M., Bhiman, J. N., Tessema, S. K., Sow, A., Sall, A. A., and Nkengasong, J., 2020, Covid-19 testing in Africa: Lessons learnt, *The Lancet Microbe*, Vol. 1, No. 3, E103–E104. [https://doi.org/10.1016/S2666-5247\(20\)30068-9](https://doi.org/10.1016/S2666-5247(20)30068-9)
- Organisation for Economic Co-operation and Development (OECD), 2019, Government at a Glance 2019. OECD Publishing.
- Organisation for Economic Co-operation and Development (OECD), 2021, Government at a Glance 2021. OECD Publishing.
- Osei-Kojo, A., Bawole, J. N., and Sakyi, E. K., 2020, The Opportunities and Constraints to Collaboration in Public Sector Management, *Public Organization Review*, Vol. 20, No. 3, pp. 495–510. <https://doi.org/10.1007/s11115-019-00452-6>
- Ozili, P., 2022, Covid-19 in Africa: socio-economic impact, policy response and opportunities, *International Journal of Sociology and Social Policy*, Vol. 42, No. 3/4, pp. 177–200. <https://doi.org/10.1108/IJSSP-05-2020-0171>
- Ozor, N., and Nyambane, A., 2020, *Embracing Open Contracting in Africa: Case Studies from Kenya, Tanzania, Uganda, Malawi, Zambia, South Africa, Ghana, Nigeria, Senegal and Côte d'Ivoire*. African Technology Policy Studies Network (ATPS).
- Panga, F. P., Mchopa, A. D. and Kazungu, I., 2015, Compliance with Procurement Plans and the Achievement of Value for Money in Public Procurement, *The International Journal of Business and Management*, Vol. 3, No. 11, pp. 176–182.
- Preuss, L., 2011, On the contribution of public procurement to entrepreneurship and small business policy, *Entrepreneurship and Regional Development*, Vol. 23, No. 9–10, pp. 787–814. <https://doi.org/10.1080/08985626.2010.546433>
- Sadiq, A. A., and Kessa, R., 2020, U.S. Procurement in the Age of Covid-19: Challenges, Intergovernmental Collaboration and Recommendations for Improvement, *American Review of Public Administration*, Vol. 50, No. 6–7, pp. 635–641. <https://doi.org/10.1177/0275074020942060>
- Siringi, E. M., 2022, Analysis of Economic Effect of Covid-19 Pandemic on the Kenyan Economy, *The African Review*, Vol. 49, No. 1, pp. 38–53.
- Siwandeti, M., Sanga, C., Mfanga, A., and Panga, F. P., 2021, Vendors' Willingness Drivers for Participation in Public Electronic Procurement System, Ilala District, Tanzania, *Sustainable Education and Development*, pp. 445–454. [https://doi.org/10.1007/978-3-030-68836-3\\_38](https://doi.org/10.1007/978-3-030-68836-3_38)
- Snider, K. F., and Rendon, R. G., 2012, Public Procurement: Public Administration and Public Service Perspectives, *Journal of Public Affairs Education*, Vol. 18, No. 2, pp. 327–348. <https://doi.org/10.1080/15236803.2012.12001687>
- Susilawati, S., Falefi, R., and Purwoko, A., 2020, Impact of Covid-19's Pandemic on the Economy of Indonesia, *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, Vol. 3, No. 2, pp. 1147–1156. <https://doi.org/10.33258/birci.v3i2.954>

- Takyi, P. O., and Bentum-Ennin, I., 2021, The impact of Covid-19 on stock market performance in Africa: A Bayesian structural time series approach, *Journal of Economics and Business*, Vol. 115, pp. 1–10. <https://doi.org/10.1016/j.jeconbus.2020.105968>
- Thai, K. V., 2001, Public procurement re-examined, *Journal of Public Procurement*, Vol. 1, No. 1, pp. 9–50. <https://doi.org/10.1108/jopp-01-01-2001-b001>
- The United Republic of Tanzania (URT), 2011, The Public Procurement Act. Government Printers.
- Trammell, E., Abutabeneh, S., and Dimand, A. M., 2020, A Review of Public Administration Research: Where Does Public Procurement Fit In? *International Journal of Public Administration*, Vol. 43, No. 8, pp. 655–667. <https://doi.org/10.1080/01900692.2019.1644654>
- Uyarra, E., and Flanagan, K., 2010, Understanding the innovation impacts of public procurement, *European Planning Studies*, Vol. 18, No. 1, pp. 123–143. <https://doi.org/10.1080/09654310903343567>
- Van Hoek, R., 2021, Exploring Progress with Supply Chain Risk Management during the First Year of the Covid-19 Pandemic, *Logistics*, Vol. 5, No. 4, pp. 1–18. <https://doi.org/10.3390/logistics5040070>
- Van Schalkwyk, F., 2021, Reflections on the public university sector and the Covid-19 pandemic in South Africa, *Studies in Higher Education*, Vol. 46, No. 1, pp. 44–58. <https://doi.org/10.1080/03075079.2020.1859682>
- Wanyonyi, S. C. and Muturi, W., 2015, Factors affecting performance of procurement function among public technical training institutions in Kisumu County, Kenya, *International Journal of Economics, Commerce and Management*, Vol. 3, No. 5, pp. 325–337.
- Yadav, A., and Iqbal, B. A., 2021, Socio-economic Scenario of South Asia: An Overview of Impacts of Covid-19, *South Asian Survey*, Vol. 28, No. 1, pp. 20–37. <https://doi.org/10.1177/0971523121994441>
- Zabala-Iturriagoitia, J. M., 2022, Fostering regional innovation, entrepreneurship and growth through public procurement, *Small Business Economics*, Vol. 58, No. 2, pp. 1205–1222. <https://doi.org/10.1007/s11187-021-00466-9>
- Zhanda, K., 2020, Beyond Recovery? Downturns, Implications and Prospects of Covid-19 Pandemic to Real Estate Development in Zimbabwe, *International Journal of Real Estate Studies*, Vol. 14, No. 1, pp. 31–40.