ECONOMIC DEVELOPMENT AND GROWTH IN AFRICA: INNOVATIVE RESEARCH IN AGRICULTURE, STRUCTURAL TRANSFORMATION, EMPLOYMENT AND PUBLIC ECONOMICS

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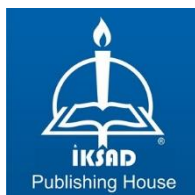Emeka Solomon FIDELIS

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PREFACE

This book comprises five primary sections, each concentrating on separate features of economics relating to economic growth and development. The sections consist of various sub-disciplines within economics as a science, like agriculture economics, structural transformation, employment, unemployment, and public economics, and present an array of viewpoints on the impact of these components on overall economic growth. In this context, we hope these sub-disciplines mentioned in the chapters have the potential to enhance our comprehension of the intricacies and variations of economic growth.

In Section 1 of "Economic Growth and Development: Agriculture-Animal Husbandry Related Studies (Effect on Economy)", Dr. Amusan Elizabeth and Dr. Mustafa Latif Emek examine the impact of agriculture and animal husbandry on a country's economic growth and development. Using qualitative approaches, it is revealed that increasing investment in the agricultural and livestock sectors generally have a positive impact on a country's macroeconomic indicators. It is therefore argued that support policies for these sectors, particularly in developing countries, can promote economic growth and ultimately reduce poverty.

In Section 2 of "Structural Transformation and Economic Growth in Selected East African Countries", Dr Ibrahim Mukisa and Sulainah Nankindu examine why structural transformation in Kenya, Rwanda, Tanzania and Uganda has not resulted in commensurate sustainable economic growth. Using World Development Indicators 2021 data, the assessments reveal the impact of the structural transformation process on the economy and its contribution to sustainable growth in these four East African countries. As a consequence, the section offers insights into various strategies that may assist in achieving a productive process of structural transformation.

In Section 3 of "A Review of the Relationship Between Gross Domestic Product and Unemployment Rate in Nigeria", Park Odojoma Idisi et al. review the literature on the relationship between GDP and

employment in Nigeria and reveal the time-varying trends between these two economic variables. As a result, the section provides numerous insights into GDP and employment dynamics to encourage economic growth and development.

In Section 4 of "Dynamics of Growth, Productivity Intensity, and Youth Unemployment in Uganda", Dr Ibrahim Mukisa and Deborah Ayebare analyse the connection between productivity, economic growth, and youth unemployment. The chapter further examines sectors with considerable capacity for generating jobs for young people by employing the "Job Generation and Growth Decomposition (JOGGs)" tool ~~model~~, which was created by the World Bank. In the light of the findings, it is stated that there is a discrepancy between the growth trend of GDP and its ability to generate employment and consequently, industries with higher job creation potential, particularly for youths, are recommended.

In Section 5 of "E-Governance and Quality Service Delivery in Nigerian Local Governments", Oluwaseun Adewale Salako and Tolulope Oluwatosin Bamiro investigate the correlation between e-governance and quality service delivery in Nigeria's local government. In the study, it is argued that utilizing information and communication technologies (ICTs) positively impacts the dispersal of information, citizen feedback, political accountability, and transparency.

It is hoped that this publication will present innovative perspectives to scholars and readers within relevant fields, providing substantial utility. Sincere appreciation is expressed to the authors for their substantial contributions, and likewise, gratitude is extended to the readers. With the hope of contributing to your future work with the information presented here.

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CHAPTER 1

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ECONOMIC GROWTH AND DEVELOPMENT:
AGRICULTURE - ANIMAL HUSBANDRY RELATED STUDIES
(EFFECT ON ECONOMY)

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INTRODUCTION

Economic growth and development is germane to the wellbeing of any nation. Without economic growth, a nation cannot move from an underdeveloped or developing nation to a developed nation. Hence, every effort of a nation must be targeted toward economic development.

Agriculture is one of the key sectors of the economy that can rapidly enhance growth and boost the profit margin of a nation. Agriculture on its own is a wide subject that includes crop and animal farming. Production of crops like cocoa, cashew and kola can be used as a source of foreign exchange earning while production of other food crops like cowpea, rice, maize, guinea corn tomato and okro will reduce hunger, sustain livelihood and render the citizens of a country comfortable in good healthy lifestyle since healthy citizens will make a healthy economy (Wegren and Elvestad, 2018; Pawlak and Kolodziejczak, 2020). The global population keeps increasing and food production also has to increase at the same rate. According to Foley *et al*. (2011), there will be need to double food production by year 2050 to meet the increasing demand of food for the population by then.

Apart from crop farming which must be practised in any country that desires economic development, animal agriculture is also crucial. There must be a balance of crop and animal product availability for a sustainable country development. Once food is out of the problem for any country, the country is bound to thrive because of secured livelihood of citizens. Animals like poultry, goat, sheep, cattle and many others provides valuable nutrients to the body and are suitable in reducing animal protein shortage in the diets of people especially in underdeveloped countries. Furthermore, as protein is one of the important classes of food necessary for healthy living, absence of it in the diet will lead to malnourishment and poor body growth (Enahoro *et al.*, 2018). Animal products like meat, fish and egg provide very rich source of high quality protein required in a balanced diet. Hence, efforts must be invested into their production at all cost.

Several studies have been conducted in the past to emphasise the relationship between animal husbandry and economic growth in a country (Upton, 2004; Herrero *et al*., 2013). Currently, there are also studies going on towards the improvement of animal husbandry practises. This book chapter therefore aims to bring to limelight the profitable relationship between agriculture, in form of animal husbandry and economic growth and development, considering different animal husbandry related studies.

EVALUATON OF THE TERM 'ECONOMY'

Economy is the term used to describe the careful and efficient management of resources, the production and exchange of goods and services, and the analysis of economic trends. In essence, it is the study of how goods, services, and resources are exchanged, managed, and valued. Through the analysis of an economy, economists seek to understand how economic decisions are made, how resources are allocated and how the economy responds to changes in policy, technology, and other external forces (Shizgal, 2012). Economists also study economic relationships that exist between different countries and regions, and the effects of these relationships on economic performance and improvement.

ECONOMIC GROWTH AND DEVELOPMENT

Economic growth entails the development of the global economy, considering both advanced economies and emerging markets. It identifies the different factors that drive economic development and then goes on to investigate the extent to which economic policies can be used to accelerate such growth. There are various economic indicators that are used to measure economic expansion, such as GDP, investment, and productivity (Pawlak and Kolodziejczak, 2020). The structural changes and the need for a long-term perspective in economic decision making is also very important. It considers the potential for future economic growth, and the challenges that may be faced in achieving it.

AGRICULTURE AND ANIMAL HUSBANDRY AS IMPORTANT SECTORS IN THE ECONOMY

Agriculture is a major pillar of the global economy, providing employment to 1.3 billion people, or one third of the world's population. It is the world's largest employer, contributing around 10.3% of global GDP and supporting the livelihoods of more than 80% of the world's population. Agriculture is also a key element of the global food system, providing over 70% of the food consumed worldwide (World travels and tourism council, 2020). Nwafor *et al.* (2011) also postulated that agriculture plays a gigantic role in poverty reduction generating over 40% of a country's GDP and 60% of the working population. Agriculture plays an important role in economic development, providing the basis for increased incomes, greater food security, and improved nutrition. It does this through increased production of food and fiber, improved technology, better access to markets, higher farm prices, reduced poverty, and job creation.

Despite its importance, the agricultural sector is faced with numerous challenges. These include climate change, water shortages, land degradation, unsustainable fertilizer use, and a lack of access to markets and financing (Enete and Amusa, 2010). Therefore, it is important for governments, the private sector, and civil society to collaborate to develop strategies to ensure that the sector can support economic growth and development in the long-term.

Animal husbandry is an essential aspect of agricultural production focused on the care, breeding, and management of livestock animals such as cattle, horses, sheep, pigs, poultry, and other animals. It is the application of science and technology to the care and breeding of animals for agricultural purposes (FAO, 1976). The practice of animal husbandry has been in existence for centuries as a way to gain a sustainable source of meat, milk, and other animal products. Additionally, animal husbandry helps to ensure healthy and well-treated animals that are free from disease, malnutrition, and injury (FAO, 2009). The practice of animal husbandry involves a number of tasks, including the choice of breeds and genetics, housing and pasture

management, providing for pest and disease control, and providing balanced nutrition. It also includes the best practices of animal welfare, including ethical considerations, humane handling, and the avoidance of pain and suffering. The goals of animal husbandry are to produce healthy and productive animals that live long, productive lives with minimal human intervention.

Animal husbandry plays an important role in the global food system and is essential for meeting the food demands of a growing population (Han *et al.*, 2020). As the world population continues to grow, animal husbandry will become even more important, as farmers strive to feed an ever-increasing population with limited resources. Animal husbandry also has important economic benefits, as it provides jobs, income, food, and other economic benefits to both rural and urban communities (FAO, 1976). Animal husbandry has traditionally been associated with an agrarian setting, but the practice is also becoming increasingly popular in the urban environment. Urban animal husbandry provides the opportunity for people to connect with livestock and to gain an understanding of animal husbandry practices. Through urban animal husbandry, people can become more knowledgeable about animal welfare, nutrition, and animal behaviour.

ROLES OF ANIMAL HUSBANDRY PRACTISES IN NATIONAL ECONOMIC GROWTH

This section of the book chapter looks at the roles of animal husbandry within the context of national economies. It examines the various ways in which animal husbandry practices have been important in creating economic stability, while also looking at the potential pitfalls and challenges that may come about as a result of the industry. The paper draws upon both current literature and statistical data from national and international sources to illustrate the various impacts that animal husbandry has had on the national economic landscape.

Animal husbandry has a long history of contributing to economic growth and stability in many countries, including providing employment and income to a large number of people, and creating a

more diversified agricultural sector (Upton, 2004). However, the potential dangers to animal welfare are discussed, as well as the potential for environmental degradation as a result of careless practices.

The main findings of researchers are that animal husbandry is a powerful economic tool, providing an array of benefits that contribute to economic growth and development. These benefits include increased agricultural yields, increased nutritional and health benefits, improved economic stability, improved access to credit and capital and increased job opportunities (Baltenweck *et al*. 2020; IFAD, 2021). Increased animal husbandry can have a direct effect on both domestic and international economic growth and development. Furthermore, animal husbandry can help to alleviate poverty, reduce food insecurity, and promote environmental sustainability, as well as better environmental outcomes (Otte and Upton, 2005). Hence, the economic role of animal husbandry is considered in the context of various national economies, revealing its overall importance.

RECENT STUDIES RELATED TO THE RELATIONSHIP BETWEEN ANIMAL HUSBANDRY AND ECONOMIC GROWTH

Animal husbandry has been studied and developed by researchers for many years. As a fact, the economic progress of a country is closely linked to the production and consumption of animal-sourced goods. Current studies have sought to understand the implications of animal production on economic growth and development. This section therefore provides a comprehensive overview of the research that has been conducted on animal husbandry in the past and to date.

The researches reviewed in this paper reveals how animal husbandry is used to improve the quality and quantity of animals used for agricultural purposes and to promote sustainable, efficient production of food and other animal products. A number of scientific studies have focused on the breeding and management of various species of livestock and how these practices can be improved to

increase productivity and reduce environmental impacts. In addition, research has looked into the use of technology to improve the overall health of animals, which can contribute to better yields and reduced costs associated with animal health. Researches have also been conducted to determine the most effective methods for maintaining animal health and welfare, and for promoting responsible use of resources. Other research has centered on understanding the behavior and communication patterns of animals, in order to better develop husbandry practices and increase the efficiency of animal production.

On the other hand, current research has explored the potential of using artificial intelligence and other emerging technologies to enhance animal husbandry. These technologies can be used to monitor animal health and behaviour, and to develop new strategies for improving animal welfare, production efficiency, and the overall sustainability of agricultural production. This section therefore provides an overview of the research and developments that have been conducted and are ongoing in the field of animal husbandry. It also discusses the need for further research and development in this field in order to continue to improve and refine husbandry practices.

One recent study by Wang *et al*. (2023) aimed to assess the current evidence for the relationship between animal production and economic growth in developing countries. The authors used both quantitative and qualitative methods to review existing literature and examine the various dimensions of animal production. The study found that animal production is positively associated with economic growth, providing evidence for the role of animal production in the development of a country.

A review by Otte and Upton (2005) explored the impact of animal production on poverty and economic growth in Sub-Saharan Africa. It was revealed that animal production has a positive effect on poverty reduction, with an increase in income associated with increased animal production. In the same view, Sassi (2023) investigated the relationship between animal production and economic development. It was concluded in the review that animal production has a positive

relationship with economic development, and that income generated from animal production can be used to support other income-generating activities. Baltenweck *et al.* (2020) also conducted a study of existing literature on animal production and economic growth. Evidences that suggest that animal production contributes to economic growth by providing income, resources, and employment opportunities were revealed. A study by Wang *et al.* (2020) and Wang *et al.* (2023) further explored the impact of livestock production on economic growth in China. They found that livestock production has a positive effect on economic growth through increased employment and income. Another study by Zhang *et al.* (2020) explored the effects of the performance of animal production on economic growth in China. The authors used secondary data from 1990-2015 to analyze the relationships between animal production, economic growth and poverty reduction. The results of the study showed that animal production is a key factor in influencing economic growth and poverty reduction in China.

Finally, a study conducted by Sarmento *et al.* (2020) aimed to provide a holistic view of the effects of animal production on economic performance. The authors used case studies from Brazil and India to assess the production, processing, marketing and consumption of animal-sourced goods. The findings revealed that animal production contributes significantly to economic growth in both countries.

Futher literatures

In summary, existing research suggests that animal production has a positive effect on economic growth in various forms, including the generation of income, resources, and employment opportunities. The implications of these studies suggest that animal production has the potential to be a valuable source of economic growth, particularly in areas with low incomes.

RECENT IMPROVEMENT ON ANIMAL PRODUCTION FOR FURTHER ECONOMIC GROWTH AND DEVELOPMENT

There are recent studies on improvement in animal production that have also had great impact on economic growth. These improvements have been put in place to augment the previous conventional ways of animal husbandry. The improvements are in various categories including use of alternative feed stuff for animal use, crossbreeding of local and exotic animal breeds, artificial insemination techniques, use of growth promoters and feed additives and many others.

A. Studies on Alternative Feed Stuff for Use in Animal Feeding to Improve Farmers' Profit Margin and Economic Growth

In examining the effects of various alternative feed stuffs in animal feeding, it is worthy of note to understand that several alternative feed stuffs such as grains, legumes, grasses, and silage can improve the economic wellbeing of the agricultural sector by improving the quantity and quality of animal feed at reduced costs. The implications of their usage will lead to reduction in the cost of production and maximization of the profit margin, thereby boosting the nation's economy.

Several recent animal studies revealed that some conventional feed stuff, especially cereals such as maize, have been tested to be replaced with many alternative feed ingredients such as corn cobs, cassava peel, cassava pulp, cassava foliage, sweet potato root meal, yam peel meal and many others (Akinbola *et al*., 2019; Ajayi and Ajao, 2020; Garajeh *et al*., 2022; Aro *et al*., 2022; Emerue and Akinbola, 2022; Oladeji *et al*., 2022; Emerue *et al*., 2022; Emerue and Akinbola, 2023; Oladeji *et al*., 2023). The aim of replacing the conventional feedstuff with other substitute is due to increasing cost of maize and reduced availability, as a result of competition between man and animals for these feedstuffs.

The increase in feed prices and the scarcity of grains and protein plant supplements are important constraints hampering livestock

production sector in many countries. Therefore, reducing the production cost is the main objective of farmers to maximize their net revenue. The agro industrial by-products can have a major influence on reducing the production cost. Hence, the need to harness the potentials of this numerous agro industrial by-products and the so called wastes as part replacement for expensive ones have been advocated (Aletor, 1986). In a nutshell, the primary purpose of using alternative feedstuffs in livestock diet is to reduce the production cost while also improving or and not affecting carcass characteristics and meat quality (Obeidat *et al*., 2009).

However, policy makers and the agricultural sector in each country need to have an understanding of the benefits and potential limitations of alternative feed stuffs as a method of reducing the cost of production and improving the quality of animal feed.

B.   Studies on Crossbreeding of Local breeds with Exotic Animal Breeds to Improve Growth Performance and Productivity

Crossbreeding of local and exotic breeds is a growing trend in the livestock industry. A wide range of studies have been carried out to analyze the effects of crossbreeding on animal production, health, disease resistance, and other aspects of animal husbandry. There is great need to understand the potential benefits of crossbreeding local and exotic animal breeds in order to improve their productivity and economic growth. This section will identify the effects of crossbreeding on productivity and economic growth, and any issues that may arise from crossbreeding.

An increasing number of studies have also demonstrated that crossbreeding of local and exotic animal breeds can have great impacts on the productivity and economic growth of animal production systems. A study conducted in Europe have focused on dairy cattle and examined the effects of crossbreeding systems, for increased production, on milk yield, somatic cell count, fertility, and disease resistance (Stock *et al*., 2020). Also, a study in the United States have also revealed that crossbreeding of local and exotic animal breeds has

the potential to improve production traits of animals, such as milk, meat, and wool production (Hailemariam *et al.*, 2023). Furthermore, a study in 2010 compared the productivity of crossbreds and purebred Holsteins and concluded that crossbreeding had a positive impact on milk production (Mogollon-Garcia *et al.*, 2020). Studies in China have revealed that crossbreeding local cows with imported breeds improved the performance of the animals (Zhang *et al.*, 2015). Similarly, a study in Iran found that crossbreeding local breeds with imported breeds of sheep increased the size of lambs and their growth rate (Vatankhah and Zakizadeh, 2020).

In addition to improved productivity, crossbreeding of local and exotic animal breeds has also been associated with improved economic growth. Studies in China have revealed that crossbreeding local breeds of pigs with imported breeds improved carcass and meat quality traits thereby increasing the economic efficiency of animal production systems (Ganteil *et al.*, 2021). In Brazil, crossbreeding of local and exotic breeds was found to increase the economic profitability of beef cattle production systems (Favero *et al.*, 2021).

Generally, studies have indicated that crossbreeding is associated with increased milk production, somatic cell count, and fertility. Furthermore, crossbreeding has been found to improve the resistance to various diseases, such as mastitis disease. In beef production, results of these studies have suggested that crossbreeding can lead to increased carcass size and conformation, and improved disease resistance. Overall, evidence from studies conducted suggest that crossbreeding of local and exotic breeds is associated with various benefits including increased production, improved health and disease resistance, enhanced carcass quality and economic profitability of various animal production systems. Although further research is needed to fully understand the potential of crossbreeding, these studies indicate that crossbreeding can be a valuable tool for improving animal production and health. Further research may also be needed to assess the long-term sustainability of crossbreeding on animal production systems.

C.   Recent Studies on Use of Artificial Insemination in Animals to Improve Productivity

This section points on recent findings on Artificial Insemination (AI) in animals and its potential to improve production. Artificial insemination is a process used to introduce semen from one or more males into the reproductive tract of one or more females, in order to facilitate procreation. This technique has been used in animals since the late 19th century, and is widely used in the modern farming industry (Gaurang *et al*., 2017).

The use of AI for the production of dairy animals and meat provides numerous advantages. Benefits include a higher milk yield, increased weight gain, productivity, health, and reproductive success rates in animals and a lower rate of postnatal mortality. AI can also reduce the direct costs associated with reproduction and labor, as it requires fewer labor hours than traditional mating (Valergakis *et al*., 2007). Furthermore, AI can be used to monitor animal performance on-site and obtain timely information about the genetic quality of animals. A review of recent studies indicates that AI used in the production of dairy and meat products can lead to improved productivity, health, and reproductive success rates in animals (BBC, 2015).

Several researches have documented artificial insemination techniques and procedures in broiler chicken, layer chicken, turkey and geese (Adebisi and Ewuola, 2019; Bolarinwa *et al*., 2020; Ewuola *et al.,* 2020; Abioye *et al*., 2022, Olarinre *et al.,* 2022*;* Akinbola and Ewuola, 2023). Artificial insemination protocols have also been proven to work on rabbits, goats, sheep, cattle, (Zhao, 2009; Ajuogu and Ajayi, 2010; Soliman and El-Sabrout, 2020; Valergakis *et al*., 2007). All these studies have traced a positive significant growth and increase in the productivity of animals through AI.

In summary, AI is a useful and cost-effective tool for improving animal production. Studies demonstrate that AI can increase milk yield, reduce labor costs and introduce desirable traits into the breeding population. Studies suggest that artificial insemination can also improve the genetic quality of farm animals by enabling the

introduction of desirable traits into the breeding population. This is because AI gives farmers the opportunity to select male animal semen donors on the basis of traits such as disease resistance, fertility, and technic characteristics. Careful consideration should be taken, however, when selecting semen donors on the basis of genetic quality.

D.   Recent Studies on Growth Promoters and Additives in Animal Feeding to Improve Animal Husbandry Practices.

Recent studies have sought to improve the vast production of animals through the introduction of various growth promoters and other additives. These include the use of hormones, antibiotics, phytobiotics, enzymes and other performance enhancers. Commonly studied animals include poultry, swine, and ruminants (Gheisar and Kim, 2018; Rahaman *et al*., 2022). It has been observed that the use of sub-therapeutic antibiotics in animal feed could significantly increase poultry and livestock productions (Helm *et al*., 2019; Low *et al*., 2021; Hou *et al*., 2022).

Hormones have been used in animal production for years, and research has been conducted to evaluate their efficacy and safety. Studies have suggested the potential use of various growth hormone types, such as insulin-like growth factor, for swine and cattle. Other hormones, such as progesterone, have been shown to be beneficial to reduce pork fat depots and improve muscle growth in swine (Malgwi *et al*., 2022). Antibiotics have also been studied as growth promoters. Research suggests that antibiotics accelerate the production of animals, particularly broilers, by reducing the digestion of food. Over the past 50 years, the use of antibiotics combined with strict biosecurity and hygiene measures has helped the poultry industry to grow by preventing the negative impacts of many avian diseases (Bermudez, 2003). Further, they have been shown to be effective at preventing or limiting the spread of infections in animal production (Mehdi, 2018).

Other performance enhancers have been studied, such as and immune-stimulants feed additives of plant origin to augment for the health threat in antibiotics. Feed additives have been studied for their possible effects on growth rate and feed efficiency, while immune-

stimulants have been proposed to improve behaviour and fertility in animals (Cavallini *et al*., 2022). Essential oils and plant extracts such as carvacrol, thymol, eugenol have been hypothesized to improve immunity (Purchiaroni *et al*., 2013), reduce infectious diseases (Michiels *et al*., 2008) and to provide antioxidative ability (Karadas *et al*. 2014; Placha *et al*. 2014)

Overall, these recent studies have explored the potential benefits of hormones, growth promoters antibiotics, and other performance enhancers as a means to improve animal production and economic growth (Thornton, 2010). Further research may be needed to evaluate the safety and efficacy of these growth promoters and additions, as well as the risk of adverse effects on animal and human health from their use (Gheisar and Kim, 2018).

Finally on a general term, the literature reviews and studies examined in the various segments of this book chapter revealed that, the majority of the current studies on recent improvement on animal production in improving economic growth confirm positive effects on economic growth. Hence, research findings suggest that animal production has the potential to boost economic growth through both direct and indirect means.

Direct effects include increased production of food, which can then be sold for profit; increased production of animal by-products such as fiber, hides, horns, and feathers; and increased production of animal-derived energy sources, such as biofuels. Indirect effects include reducing the pressure on other agricultural land uses, both to provide forage and to reduce the need for agricultural land to produce feed for animals; increased income and expenditure from tourism activities that are dependent upon sustainable animal production; and increased provision of environmental services, such as soil and water conservation, soil fertility enhancement, and carbon sequestration.

Hence, recent improvements in animal production have the potential to improve economic growth in the long term. Further research is needed to better understand the precise mechanisms by

which animal production contributes to economic growth and to determine the most effective strategies for achieving these growth objectives.

CONCLUDING REMARKS

Agriculture in form of animal husbandry has the potential as a powerful tool that contributes significantly to the economic growth and development of many societies. The findings of the literature reviews and studies suggest that in all, there is a positive link and impact between animal husbandry and economic growth. It is therefore obvious that there is no alternative route to economic growth and development without cogent investment in agriculture and animal husbandry. For a nation to enjoy sustainable development, the government must continually commit to promoting the agricultural sector of the economy. Also, policies and initiatives should be tailored to local conditions and needs in order to maximize economic benefits. In summary, underestimating agriculture and animal husbandry can lead to poverty, hunger, lack and consequently insecurity and low profit margin in the economic system. Further researches should focus on better understanding the extent of the effects of animal production on economic development in different countries of the world. The pros and cons of the industry also need to be practically reviewed, as well as the potential challenges that may arise due to careless practices.

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CHAPTER 2

STRUCTURAL TRANSFORMATION AND ECONOMIC GROWTH IN SELECTED EAST AFRICAN COUNTRIES

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INTRODUCTION

1.0   Background

Establishing sustainable economic growth is vital for enhancing the quality of life for a nation's citizens through the creation of employment opportunities, elevation of income levels, and provision of resources to support public services and investments. However, to achieve this, it's imperative to achieve successful structural transformation. This transformation entails fundamental shifts in an economy's production, employment distribution, and value enhancement across various sectors. Moreover, structural transformation encompasses more than just altering the relative proportions of sectors; it involves fostering the growth of intricate and sophisticated economic activities that contribute to heightened productivity, innovation, and an overall enhancement of living standards.

During the process of structural transformation, agriculture undergoes changes that have multiple effects. Labor is released from the agricultural sector, allowing it to be employed in other sectors. Additionally, agriculture contributes abundant raw materials that can be utilized for secondary processing and manufacturing purposes. The growth of farmer income stimulates demand for non-food products, particularly non-tradable items, which in turn creates substantial local multiplier effects. This phenomenon is closely linked with economic growth, poverty alleviation, urbanization, and the more efficient integration of factors like finance, labor, and output markets, as highlighted by Barrett et al. (2019).

Brownbridge et al. (2016) have also highlighted key patterns of structural change, including shifts in the composition of Gross Domestic Product (GDP) where agriculture's share decreases while industry and services sectors witness growth. Additionally, changes in the labor force composition are observed, moving from self-employment to wage employment in the formal sector, alongside rising labor trends, among other factors.

Structural transformation has manifested in the chosen East African nations across time. In the case of Rwanda, Caldarola et al. (2022) elucidate how the expansion of mobile internet coverage led to amplified employment prospects, thereby contributing to shifts within the labor market's composition. In both Kenya and Tanzania, manufacturing employment portions witnessed growth post-1990 (De Vries et al., 2015). In Uganda, as

per the International Labour Organisation's 2021 database, the percentage of total employment within the agricultural sector has been gradually diminishing, decreasing from 66% in 2012 to 62% in 2021.

2.0   Key sectors driving economic activity in selected East African countries

2.1   Uganda

Uganda's economy is diverse, with agriculture being a significant contributor to GDP and employment. The country has experienced moderate economic growth over the years. Uganda's key sectors include agriculture, services and industry. The agriculture sector is a cornerstone of the economy, with crops like coffee, tea, bananas, and maize being major contributors. It employs a large portion of the population. The services sector, including trade, finance, tourism, and telecommunications, has been growing steadily. Uganda's industrial sector includes agro-processing, manufacturing, and construction, though its contribution to GDP is smaller compared to agriculture and services.

Uganda's third National Development Plan (NDP III) in its initiative for successful structural transformation outlines strategies for sustainable economic growth and transformation, focusing on key sectors and reducing poverty. The key elements are agricultural modernization, investment in infrastructure, export promotion and skills development. These initiatives have contributed to growth in sectors like agriculture, services, and telecommunications.

2.2   Kenya

Kenya has one of the more diversified economies in the region, with a mix of agriculture, services, and industry. It's considered one of the economic hubs of East Africa. Tea, coffee, horticulture, and floriculture are significant export crops in the agriculture sector of Kenya. The sector also includes subsistence farming and livestock. The services sector is vibrant, with finance, communications, tourism, and technology playing major roles while manufacturing, construction, and light industry contribute to Kenya's industrial base. The country has seen growth in textiles, food processing, and consumer goods manufacturing.

Kenya's Vision 2030 is a comprehensive development blueprint aimed at transforming the country into a newly industrializing, middle-income

economy. It focuses on economic, social, and political pillars. The key elements are investment in infrastructure, investment promotion for example Special Economic Zones (SEZs), technological innovation and value Addition. These initiatives have spurred growth in sectors like telecommunications, finance, horticulture, and construction, contributing to the country's status as a regional economic hub.

2.3   Tanzania

Tanzania's economy has a strong reliance on agriculture, but efforts have been made to diversify through industrialization and services. Agriculture, including cash crops like coffee, tea, cotton, and tobacco, is a primary sector. For the service sector, tourism is a significant contributor, with Tanzania's wildlife and natural attractions drawing visitors. Other services include telecommunications and financial services. The industrial sector includes mining, manufacturing, and construction. Tanzania has been developing its mining sector, especially in gold and natural gas.

Tanzania's National Five-Year Development Plans outline strategies for economic transformation, industrialization, and poverty reduction. The key elements are industrialization drive, investment in infrastructure, sector engagement as well as chain development. Tanzania's focus on industrialization and value addition has led to growth in sectors like mining, construction, and manufacturing.

2.4   Rwanda

Rwanda has experienced impressive economic growth in recent years, driven by various sectors and strategic government policies. Coffee and tea are major exports, while subsistence farming is widespread. Services, particularly tourism, have grown rapidly, also Rwanda's eco-tourism initiatives and investment in infrastructure have attracted visitors. The country has been focusing on developing industries like construction, mining (tin, tantalum, and tungsten), and manufacturing, including textiles and agro-processing.

Rwanda's Vision 2020 is a long-term development plan aimed at transforming the country into a middle-income, knowledge-based economy. It emphasizes economic diversification, good governance, and human capital development. The key elements in this initiative were Public-Private Partnerships, investment in human capital, economic diversification and

infrastructure development. Rwanda's strategic approach has led to consistent economic growth, reduced poverty rates, and significant improvements in various sectors, including services and technology.

Figure 1 below shows the annual growth in GDP for the selected 4 East African countries. The average yearly GDP growth rates for the period 2013 to 2022 are 4.5% for Kenya, 6.3% for Rwanda, 5.5% for Tanzania, and 4.6% for Uganda. Notably, in 2020, there was a significant decrease in annual GDP growth across all these nations. This decline can be attributed to the impact of the Covid-19 pandemic.

Figure 1: Percentage of annual growth in GDP at market prices
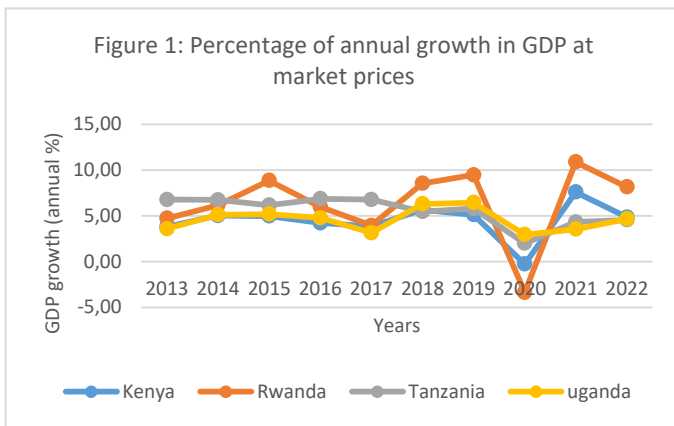
Source: Authors' calculations based on World Bank (2021).

In all these countries, efforts to promote structural transformation and economic diversification are ongoing. While agriculture continues to be a prominent sector, services and industry are becoming increasingly important drivers of growth. Governments in the region are investing in infrastructure, education, and technology to foster economic development and improve the overall quality of life for their populations. The successful structural transformation initiatives share common themes as discussed above. They reflect the commitment of East African countries to long-term development, poverty reduction, and sustainable economic growth.

3.0   Structural transformation and employment shifts in selected East African countries

A multitude of development policies aimed at fostering successful structural transformation have been put into action within East African nations. Such policies include import-substitution industrialization (ISI), policies to encourage investment, improve governance, and diversify the

economy among others as already discussed above. While certain policies have effectively encouraged diversification and industrialization, others have yielded inefficiencies and restricted advancements.

The figures below illustrate the percentage of total employment in agriculture, services and industry sector in the selected East African countries.

Over the past decade, there has been a decrease in the proportion of overall employment within the agriculture sector, declining from 39% in 2012 to 33% in 2021. In contrast, the service and industry sectors have witnessed an upward trend, as indicated in Figure 2.

Figure 2: Percentage of total employment in agriculture, services and industry in Kenya (2012-2021)
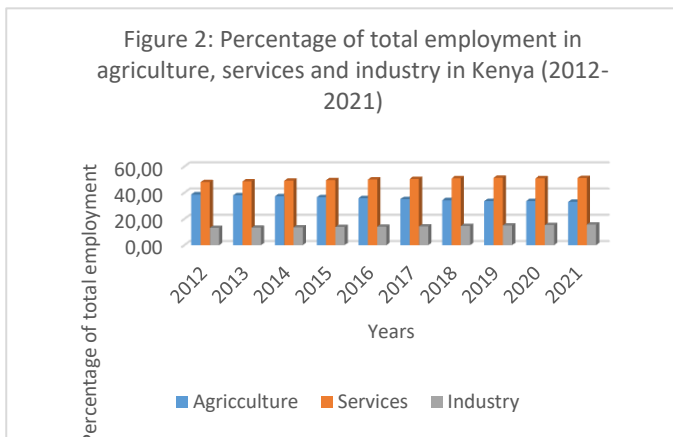
Source: Authors' calculations based on World Bank (2021)

Currently, the agriculture sector holds the largest share of total employment in comparison to other sectors. Nevertheless, it's noticeable that this percentage is experiencing a gradual decline over time, whereas the percentages of employment in other sectors are on the rise, as depicted in Figure 3

Figure 3: Percentage of total employment in agriculture, services and industry in Rwanda (2012-2021)
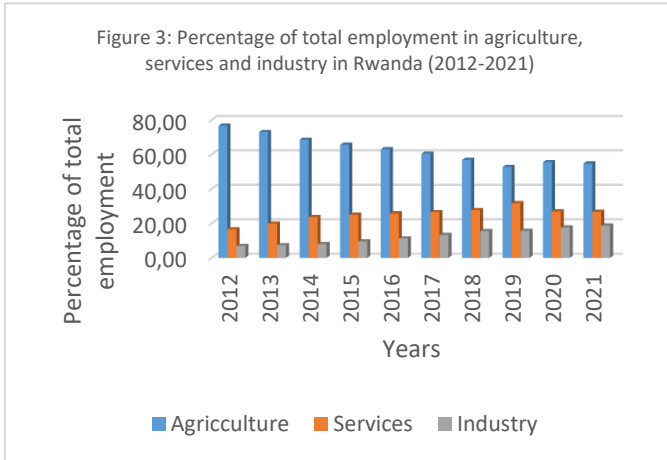
Source: Authors' calculations based on World Bank (2021)

From 2012 to 2021, the agriculture sector has consistently accounted for the highest percentage of total employment. However, this percentage has been gradually decreasing over time. In contrast, the service and industry sectors are experiencing an upward trend in their employment percentages, as illustrated in Figure 4.

Figure 4: Percentage of total employment in agriculture, services and industry in Tanzania (2012-2021)
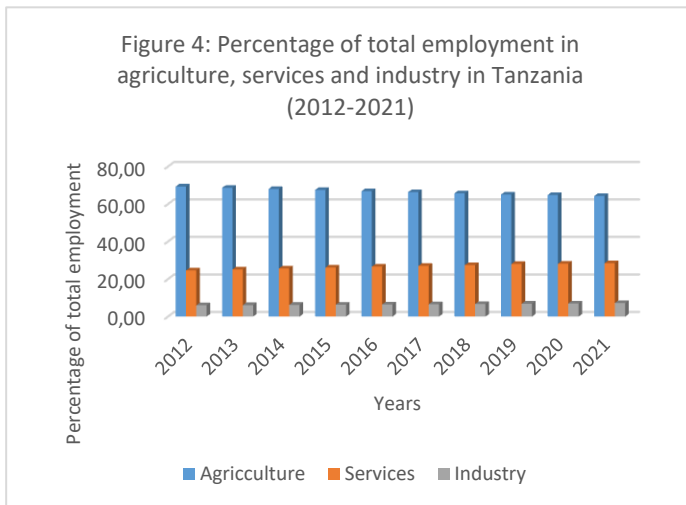
Source: Authors' calculations based on World Bank (2021)

As depicted in Figure 5, the data reveals that from 2012 to 2021, the agriculture sector consistently holds the highest percentage of total

employment. However, this percentage demonstrates a downward trend over the specified period. Concurrently, the service and industry sectors are displaying an upward trajectory in their employment percentages.

Figure 5: Percentage of total employment in agriculture, services and industry in Uganda (2012-2021)

Source: Authors' calculations based on World Bank (2021)

4.0 Unsuccessful structural transformation and persistent poverty

The promise of structural transformation lies in its potential to create high-quality employment opportunities, increase productivity, and improve living standards for a nation's populace. However, the experiences of East African countries, including Uganda, Kenya, Tanzania, and Rwanda, underscore the complexities and challenges that can arise when this transformation process falls short of its intended goals.

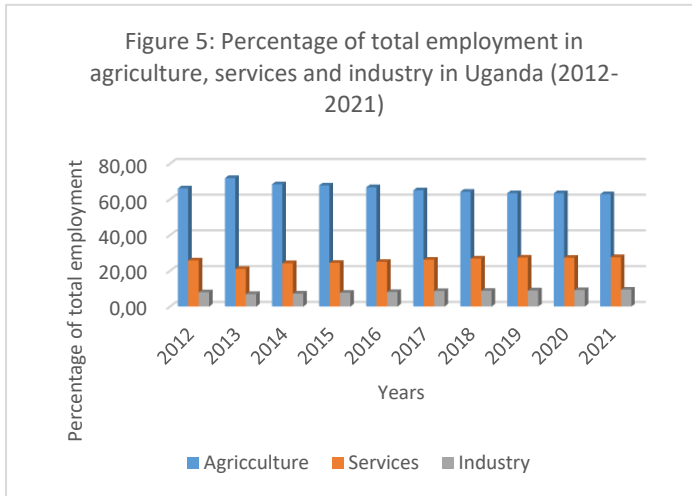In relation to the above, within the context of Tanzania, spanning the period from 2000 to 2019, the economy maintained an average annual GDP growth rate of 6.3%, surpassing the average growth rate of 4.3% for the Sub-Saharan African region. However, this notable growth did not translate into considerable poverty reduction, the establishment of high-quality employment opportunities, or noticeable enhancements in productivity levels (Mazungunye & Punt, 2022).

In contrast to countries like those in Asia, where successful transformation was propelled by the shift of labor from agriculture to labor-intensive manufacturing, leading to the creation of improved employment opportunities and a reduction in poverty rates, the movement of labor in the

selected East African nations has largely been directed towards the services and predominantly informal sectors, regrettably, these sectors exhibit productivity levels that are not significantly different from those found in traditional agriculture.

In this context, the purpose of this chapter is to explore why structural transformation is not proportionately resulting in enhanced productivity and sustainable growth.

As we navigate through the cases of Uganda, Kenya, Tanzania, and Rwanda, it becomes evident that the relationship between structural transformation and poverty reduction is not a straightforward one. While economic growth has been achieved, the extent to which it has trickled down to the most marginalized and impoverished segments of society varies significantly. We will explore the underlying factors contributing to this discrepancy, shedding light on policy shortcomings, institutional constraints, and the need for a more holistic approach to economic development in these countries.

5.0 Major challenges and barriers faced in achieving sustainable productivity growth through structural transformation

The challenges surrounding why structural transformation is not proportionately resulting in enhanced productivity and sustainable growth in Uganda, Kenya, Tanzania, and Rwanda can be complex and multifaceted. Several possible causes and contributing factors may include:

Limited diversification: Reliance on a narrow range of industries and exports may limit opportunities for economic diversification, leading to vulnerability to external shocks.

Agricultural dominance: A significant portion of the population remains engaged in subsistence agriculture, which can hinder labor movement to more productive sectors.

Low agricultural productivity: Low agricultural productivity due to limited access to modern farming techniques, technology, and infrastructure can constrain rural development and labor mobility.

Informal sector predominance: A substantial portion of the workforce is employed in the informal sector, which often lacks job security and productivity-enhancing measures.

Infrastructure Gaps: Inadequate infrastructure, including transportation, energy, and telecommunications, can hamper business operations and economic growth.

Access to finance: Limited access to finance, especially for small and medium-sized enterprises (SMEs), can hinder entrepreneurship and economic diversification.

Inadequate education and skills: A mismatch between the skills of the labor force and the requirements of modern industries can hinder productivity growth.

Corruption and governance issues: Corruption, weak institutions, and governance issues can deter foreign investment and hinder effective policy implementation.

Political instability: Political instability or conflict in the region can disrupt economic activities and discourage investment.

Inequality: High income inequality may limit the equitable distribution of the benefits of structural transformation, leading to social tensions and reduced social cohesion.

Trade barriers: Trade barriers and protectionist policies can limit access to global markets and hinder export-led growth.

Lack of technological adoption: Slow adoption of modern technology and innovation in various sectors can limit productivity improvements.

Limited access to healthcare and education: Inadequate access to healthcare and education can lead to a less healthy and less educated workforce, which may struggle to contribute to higher-productivity sectors.

Environmental sustainability: Unsustainable environmental practices may have negative long-term effects on resource availability and economic growth.

Regional instabilities: Regional conflicts or geopolitical tensions can disrupt trade and economic cooperation among neighboring countries.

It's important to note that the specific causes and their relative importance can vary among these countries and may change over time. An in-depth analysis, combining quantitative and qualitative research methods, can

help identify the most critical factors contributing to the challenges of structural transformation in each of these East African nations.

6.0   Policy recommendations for sustainable structural transformation in the selected East African countries.

Accelerating sustainable structural transformation in East African countries like Uganda, Kenya, Tanzania, and Rwanda requires a multi-faceted approach that addresses various economic, social, and institutional dimensions. Here are strategies that can help drive this transformation:

- Invest in education and skills development. Enhance education systems to provide relevant skills for modern industries. Focus on STEM (Science, Technology, Engineering, and Mathematics) education to meet the demands of the digital economy.
- Promote innovation and research. Create an enabling environment for innovation through research and development incentives, tech hubs, and partnerships between universities and industries.
- Support entrepreneurship. Facilitate access to finance, mentorship, and business development services for startups and SMEs to encourage entrepreneurship and job creation.
- Upgrade infrastructure. Invest in transportation networks, energy supply, and ICT infrastructure to reduce logistical bottlenecks and enhance connectivity.
- Strengthen regional integration. Deepen collaboration within regional economic communities like the EAC to promote trade, harmonize policies, and create a larger market.
- Promote value addition in agriculture. Encourage agro-processing, post-harvest handling, and value chain development to increase agricultural productivity and income for farmers.
- Foster industrialization. Develop export-oriented industries, improve manufacturing capabilities, and

create an environment that attracts both domestic and foreign investment.

- Digital transformation. Promote digitalization across sectors, including e-government services, fintech, e-commerce, and digital agriculture, to drive efficiency and innovation.
- Sustainable energy development. Invest in renewable energy sources to address energy deficits, reduce reliance on fossil fuels, and promote environmental sustainability.
- Promote financial inclusion. Expand access to financial services, especially in rural areas, to promote savings, investments, and entrepreneurship.
- Address income inequality. Implement progressive taxation, social safety nets, and policies that promote inclusive growth, reducing income disparities.
- Gender equality and women's empowerment. Promote women's access to education, healthcare, and economic opportunities to reduce gender disparities and enhance development.
- Climate-resilient development. Integrate climate resilience measures into development plans, ensuring sustainable resource management and environmental conservation.
- Transparent governance and institutional reform. Strengthen institutions, improve governance, and combat corruption to create a conducive environment for investment and growth.
- Promote export diversification. Encourage the diversification of export products and markets to reduce vulnerability to external shocks.
- Social investments. Improve healthcare and education systems to enhance human capital, leading to a healthier, more skilled workforce.

- Youth empowerment. Design policies and programs that target youth employment, entrepreneurship, and skill development.
- Community-based development. Engage local communities in development planning and decision-making processes to ensure inclusive growth.
- Public-Private Partnerships (PPPs). Foster collaboration between governments and the private sector to leverage resources, expertise, and technology for development projects.
- Data-driven decision-making. Establish mechanisms for data collection and analysis to inform evidence-based policies and monitor progress.
- By adopting these strategies and tailoring them to the specific contexts of East African countries, governments and stakeholders can accelerate sustainable structural transformation, boost economic growth, and improve the well-being of their populations.

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CHAPTER 3

A REVIEW OF THE RELATIONSHIP BETWEEN GROSS DOMESTIC PRODUCT AND UNEMPLOYMENT RATE IN NIGERIA

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1. INTRODUCTION

Gross Domestic Product (GDP) and unemployment are vital macroeconomic metrics representing a country's economic health. The link between these two variables, however, is complicated and may be altered by a variety of factors such as fiscal policy, monetary policy, technology, and global economic conditions (Khan et al., 2016). A country's Gross Domestic Product (GDP) is the total value of goods and services generated in a specific time period, generally a year. It is a metric for assessing a country's economic performance. GDP is one of the most crucial financial indicators. Nigeria's economy has expanded fast since the millennium's turn; the country witnessed significant GDP growth from 2010 to 2015, with an annual average growth rate of 5.5%.

However, the economy entered a recession from 2016 to 2017 due to the drop in oil prices and output, which harmed the non-oil sector (Ideh et al., 2021; Ezu & Osakwe, 2019). Furthermore, the COVID-19 pandemic exacerbated the situation in 2020, causing GDP to drop by 3.62%, resulting in the second recession in five years (World Bank, 2021). Despite the epidemic's impact, there was a rebound in 2021, with GDP growth at 2.5% (Central Bank of Nigeria, 2021). However, despite these economic growths, Nigeria's unemployment rate stayed unrelentingly high, averaging 12.5% from 2011 to 2018 (World Bank, 2020). Furthermore, unemployment rose from 23.1% in the fourth part of 2018 to 33.3% in 2020 (National Bureau of Statistics [NBS], 2020). This means that the link between GDP and unemployment in Nigeria has not been clear, as the benefits of economic expansion have not been dispersed fairly across the economy, with many Nigerians outside the oil industry still unemployed.

Unemployment refers to a situation in which a person actively seeks a job but cannot find it. It is mainly stated as a percentage of the overall workforce; high unemployment rates imply an economy in distress, whilst low unemployment rates signal economic development. However, Bassey and Atan (2012) and Duze (2011) pointed out that the Nigerian education and training system has struggled to keep up with changing financial requirements, resulting in a scenario in which many people lack the skills and certifications needed to access the formal labour market.

Nigeria has a longstanding unemployment problem, with a current rate of 27.1% as of the second quarter of 2020 (NBS 2020). This is a

considerable rise over the previous year's rate of 23.1% (NBS, 2018). The youthful population of Nigeria has been particularly heavily struck by unemployment, with a rate of 34.9% for those aged 15 to 34 (National Bureau of Statistics, 2020). As the economy primarily depends on petroleum, a lack of economic prospects and job creation is a crucial source of unemployment in Nigeria. Furthermore, in 2020, the COVID-19 epidemic and global economic recession compounded the crisis, with many firms shutting down and decreasing their personnel (Ozili 2020).

Economic analysis frequently views the connection between GDP and unemployment as inverse. According to Siriopoulos (2020), when economic growth is promoted and sustained, it leads to increased employment levels across industries. This indicates that a more robust economy, as seen by higher-than-average GDP growth, will almost certainly result in lower jobless rates. Conversely, when growth rates stall or fall, as they do during economic recessions, firms may cut positions or reduce hours, resulting in more unemployment (Bessen 2019).

Furthermore, the correlation between GDP and unemployment has given rise to hypotheses such as Okun's law. According to this rule, for every 1% gain in GDP, there is usually a 0.5-1% drop in unemployment. As a result, the greater the gap, the greater the unemployment rate; the lesser the difference, the lower the unemployment rate (Grekousis 2018). This link, however, is not always constant, and there are exceptions to the law (Blanchard & Sheen, 2013). For example, during the COVID-19 epidemic, the United States had a historic decrease in GDP while also seeing a high surge in unemployment. This can be due to various circumstances, including temporary company closures, supply-chain delays, and travel restrictions.

Unemployment has recently been a significant source of worry for individuals, academics, government, and politicians. Although unemployment is a worldwide issue that affects both industrialized and emerging nations, affluent countries have found ways to reduce their unemployment rate. Apart from the vast waste that has increased the burden obligation of the working class, unemployment has become one of the most popular severe hurdles to social progress in developing nations, notably Nigeria. Not only that, but unemployment has been a key contributor to the population's high levels of poverty, economic disparity, and low standard of life (Ayoade & Agwu 2016). Unemployment fosters social vices while reducing national output and financial returns, eroding human capital, causing suffering, Hunger, social

upheaval, and despair for the jobless, and having a knock-on influence on the economic process (Catalano 2011).

The Nigerian government has been making efforts to alleviate the unemployment problem, such as the formation of the National Social Investment Program (NSIP) and the Youth Empowerment and Social Support Operation (YESSO), as well as the National Economic Management and Development Strategy (NEEDS). In addition, Youth Enterprise With Innovation in Nigeria (YOUWIN), the National Directorate of Employment, and many others attempt to offer vulnerable youth skills training and financial support (Akiri et al., 2016).

Regarding the association between GDP and unemployment in Nigeria, studies conducted between 2000 and 2022 yielded varied results. While several kinds of literature have revealed an adverse connection between two variables, indicating that an increase in GDP results in a decrease in unemployment rates, others have found no significant or even a positive relationship, meaning that an increase in GDP may increase unemployment rates.

This paper reviewed the literature on this topic and provided insights into the dynamics of the connection between GDP and unemployment in Nigeria.

2. REVIEW OF LITERATURE

The following studies conducted between 2000 and 2022 have established a strong relationship between GDP as a proxy for Nigeria's financial prosperity and unemployment.

Okonjo-Iweala and Philip Osafo-Kwaako (2007), in their policy brief titled "**Economic Reforms in Nigeria: Progress and Challenges**," aimed to assess the progress and challenges of Nigeria's economic reforms between 1999 and 2002. They highlighted the significance of economic growth in reducing unemployment in Nigeria. They noted that the government's policies promoting economic growth, such as privatization and deregulation, had led to some positive outcomes, including reduced inflation and increased foreign investment.

Ayinde et al. (2008) examined the connections and dimensions of "**Agricultural Growth and Unemployment Rates in Nigeria**." They analyzed their time series data using t-tests, Duncan Multiple Range tests,

Granger Causality tests, and regression analysis. Their findings indicated an inverse relationship between Nigeria's agricultural expansion pace and unemployment, supporting the Cobweb supply theory. The study further highlighted that the speed of agricultural expansion leads to decreased unemployment. Thus alleviating poverty.

Bakare (2011) investigated **"The Determinants of Urban Unemployment in Nigeria"** in his paper. The study also used time series data and a conservative error correction mechanism to test the significance of the connection between unemployment and various factors such as labor demand, labor supply, population growth, rising prices, use of capacity, gross capital creation, and nominal wage rate are all factors to consider. The econometric findings underscored the need for the government to implement strategies capable of producing opportunities through industrialization and agricultural automation, eventually leading to greater GDP.

In their journal paper titled "**Unemployment's contribution to the formation of Nigeria's Gross Domestic Product (GDP) between 2000 and 2008**," **Oye and Ahmad (2011)** examined the effect of joblessness on the country's GDP during the specified years. They analyzed their data using regression analysis and discovered that unemployment substantially impacts over 65% of the country's GDP. They also found an adverse link between the unemployment variable and GDP; an increase in unemployment led to a fall in GDP, and vice versa. They proposed implementing Public Sector Reforms as a solution to combat unemployment.

Oluyomi and Ogunrinola (2011) researched the connection between unemployment and economic prosperity in Nigeria from 1970 to 2004 in their journal publication **"The Employment-Economic Growth Relationship in Nigeria from 1986 to 2010."** They evaluated the data using the Granger causality test and the Vector Error Correction Model (VECM). As a result, they established unidirectional causality linking economic growth and unemployment in Nigeria, suggesting that economic advancement may reduce unemployment.

Stephen (2012) conducted a study examining "**From 1980 to 2008, the Effects of Unemployment on Economic Growth in Nigeria**". The study adversely linked unemployment and economic development in Nigeria.

In their paper titled "**The Relationship Between Nigeria's Unemployment Rate and Productivity Growth from 1986 to 2010**," The

co-integration and error correction model technique was used by **Amassoma and Nwosa (2012).** The regression analysis, which included both long-term and short-term models, found that the rate of joblessness did not influence Nigerian output growth over the study span. However, they emphasized the government's need to take immediate action against the increasing unemployment rate, as it remains a significant obstacle to societal progress.

Arewa and Nwakanma (2012) empirically assessed the link between output and unemployment in their work **"Okun's Prospective Real GDP Relationship and the Nigerian Economy's Growth Process: An Empirical Re-Evaluation."** They assessed Okun's original regression equations utilizing the output gap and first difference versions. To evaluate this link, the study used a vector autoregressive (VAR) mechanism and discovered that Okun's coefficient was insignificant in the Nigerian economy. However, there was a positive trade-off between the production and joblessness gaps, showing that lowering the difference between the natural and present unemployment rates contributes to reducing the gap between GDP potential and GDP real.

Nwankwo and Ifejiofor (2014) analyzed "**The Effects of Unemployment on Nigerian Economic Progress in Selected Anambra State Local Government Areas, Nigeria,**" using cross-sectional and secondary data sources. The Pearson correlation test was used to examine their hypotheses. According to their findings, unemployment impedes Nigeria's economic growth and development.

Akeju and Olanipekun (2014) investigated the legality of Okun's law in Nigeria. They examined the connection between the unemployment rate and economic growth in the long and short run using the Error Correction Model (ECM) and the Johansen co-integration test. The research found evidence of short- and long-run "**Relationships Between Unemployment Rate and Nigerian Output Growth.**" As a result, it emphasized the importance of enacting fiscal measures and attracting Foreign Direct Investment (FDI) in order to reduce the country's high unemployment rate.

Ilo (2015) explored "**The Relationship Between the Nigerian Capital Market and Unemployment**". The study aimed to identify how the capital market has impacted unemployment. Yearly series data on unemployment, market value, and other pertinent variables were examined from 1986 to 2012. According to the co-integrated Johansen vector error correction study, unemployment has continuously grown since the Structural

Adjustment Programme (SAP) was implemented, with an average unemployment rate of 8.12% for the time. The investigation also revealed that, whereas economic expansion significantly reduces unemployment, capital market development does not. Nigeria's stock market has flourished at the price of employment creation. The research advised the government to prioritize the development of labor-intensive sectors of the economy while pursuing economic growth objectives.

Hassan (2015) used Ordinary Least Square (OLS) regression techniques in "**Examining the Relationship between the GDP growth rate and poverty reduction in Nigeria**." From 1986 to 2012, He looked at additional data from the Central Bank of Nigeria and the National Bureau of Statistics. In accordance with the analysis, there is a weak association between Nigeria's joblessness and GDP growth rates. Contrary to predictions, the link was positive, meaning that as the GDP increased, so did the jobless rate. As a result, the study determined that GDP development did not benefit the poor sufficiently through job creation to reduce unemployment and alleviate poverty throughout the study period.

Chris (2015) explored the profound influence of graduate unemployment on Nigerian economic activity in his paper titled **"Graduate Unemployment and Economic Growth in Nigeria: A Democratic Government's Experience."** GDP was used as a measure of unemployment and GDP, as well as real wages. The study also identified corruption, that graduate unemployment is mostly caused by a lack of political will to enact economic policies and reforms, over-dependence on the oil sector, and bad educational planning. It emphasized that addressing these factors is crucial to prevent further setbacks in Nigeria's economic activities.

Odim (2015) set out to estimate the size of unemployment's influence on output growth and examine the consequences of the structural adjustment program in his journal paper titled "**The Cost of Unemployment in Nigeria and its Impact on GDP Growth**." He used ordinary least squares techniques using secondary data from the CBN. The study discovered a negative association between unemployment and real GDP in Nigeria, which agreed with Arthur Okun's (1962) hypothesis. The study also found an adverse association between Nigeria's structural adjustment program and unemployment.

Nwaka et al. (2015) investigated **"The Effects of Trade Policy on Nigerian Unemployment Rates Using Time Series Data From 1970 to 2010."** They used the vector error correction methodology and included variables like trade openness, recurring public education spending, Foreign pricing fluctuations, and real GDP or per capita income in the system of equations to investigate their effects on the link between trade openness and national unemployment rates. The data demonstrated that real output and per capita income lowered unemployment; however, trade openness policies increased unemployment. As indicated by commodity prices, foreign policy shocks also had a favourable impact on unemployment rates but did not help restore the system to equilibrium.

In the research "**The Determinants of the Rate of Unemployment in Nigeria From 1980 to 2016**," **Onwachukwu (2016)** used the ordinary regression approach after conducting the Augmented Dickey-Fuller test for unit root. The findings revealed that government spending, inflation, and demography all had significant roles in explaining changes in Nigerian unemployment throughout the study period. However, the early lag between unemployment and real GDP was statistically insignificant in explaining Nigerian unemployment. The report suggested devoting more funding to capital spending in the budget.

Raifu (2017) analyzed **"Examining the Roles of Trade Openness and Current Account Balance as Determinants of Unemployment in Nigeria."** The study employed the Autoregressive Distribution Lag estimation approach to examine the immediate dynamic and long-run impacts of trade openness and current account balance on Nigeria's unemployment rate from 1981 to 2014. According to the evidence, trade openness raises unemployment in the short and long run. Inflation, currency rates, and foreign direct investment all followed projected trends, but real GDP, wages, and government consumption expenditure did not. According to the report, effective trade and macroeconomic policies are needed to boost local firm production, ensure international competitiveness, and support job growth.

Raifu (2019) conducted a study titled "**The Impact of Financial Improvement on Unemployment in Nigeria: Do Financial Development Measures Matter?**" The study utilized various financial development indicators and employed the ARDL estimation method. According to the findings, only the financial sector deposit to GDP ratio can reduce unemployment in the short and long run. Other financial indicators, such as

financial efficiency, liquidity, private-sector credit, and financial stability, only revealed a short-term decrease in the unemployment rate. The study also discovered a relationship between unemployment, inflation, financial development, and real GDP. These findings were ascribed to Nigeria's degree of financial sector development compared to developing and established countries.

Nwosa et al. (2020) investigated "**the correlation between trade openness and Nigeria's unemployment rate from 1980 to 2018**". They employed the auto-regressive distributed lag (ARDL) technique and found that trade openness had a significant negative impact on the unemployment rate in Nigeria. This implies that trade openness creates employment opportunities, resulting in a reduction in the unemployment rate. Consequently, they concluded that trade openness played a crucial role in determining unemployment in Nigeria and recommended implementing deliberate economic policies that foster increased investment in the country.

In their study on "**Capital Flight and the Unemployment Rate in Nigeria**," **Makwe et al. (2021)** employed the Augmented Dickey-Fuller method. Their findings indicated that capital flight, similar to GDP, did not actually contribute to a rise in the unemployment rate in Nigeria within the studied periods. They recommended, among other things, that externally acquired debt should be utilized judiciously for infrastructural development to encourage investments, promote financial prosperity, and enhance human development in Nigeria.

Ndubuaku et al. (2021) investigated **"The Effect of Financial Development on Nigeria's Employment Rate,"** focusing on the SDGs' eight Goals. Using annualized time-series data from 1999 to 2019, the findings indicated a positively significant effect of financial development on the employment rate using the ARDL model. These findings corroborated the Phillips curve theory, demonstrating that inflation and unemployment rates had an inverse connection. The results, however, contradicted Okun's law, indicating a negative link between economic prosperity and unemployment.

Overall, the findings of the reviewed literature on the correlation between GDP and unemployment rates in Nigeria have been mixed. Most research, however, indicates that an increase in GDP correlates to a drop in unemployment rates in Nigeria.

3. CONCLUSION AND RECOMMENDATION

Nigeria's GDP trend has had some ups and downs recently, with a recession from 2016 to 2017 and again in 2020 due to the COVID-19 pandemic. While there may be some recovery in 2023, unemployment remains a significant challenge in Nigeria, particularly for youth. However, as GDP rises, businesses tend to create more new job opportunities, which ultimately brings about a fall in unemployment rates.

The reviewed studies provide evidence of a connection between GDP and unemployment in Nigeria between 2000 and 2021. The findings of these studies showed that there is a negative relationship between GDP and Unemployment in Nigeria. Investment in key sectors of the Nigerian economy has the potential to stimulate economic growth, decrease unemployment, and boost Nigeria's development. The impact of GDP on the unemployment rate is more robust at lower quantiles than at upper quantiles. Thus, understanding these complexities is crucial for policymakers seeking to promote sustained economic expansion and reduce unemployment rates.

These examined studies offered useful information into the variables influencing the country's employment rate. Policymakers and other stakeholders can use this information to develop strategies and policies promoting economic growth and creating employment opportunities for the people of Nigeria. This could entail implementing procedures to encourage entrepreneurship and investment, improving education and training programs to enhance human capital development, and leveraging technology to promote innovation and productivity growth. By working together towards these goals, Nigeria can achieve sustainable economic growth, lower unemployment rates, and improve the living standards of its citizens.

4. CONFLICTS OF INTEREST

No potential conflict of interest was reported in this manuscript.

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CHAPTER 4

DYNAMICS OF GROWTH, PRODUCTIVITY INTENSITY, AND YOUTH UNEMPLOYMENT IN UGANDA

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INTRODUCTION

1.   BACKGROUND

Uganda is a low-income country with a GDP per capita of USD 1,051 and average GDP growth of 5.3 % (UBOS, 2022/23). The economy has steadily grown over the last three decades except for the COVID-19 pandemic, which slowed growth to 3.1% in 2019/20. It is projected that the economy will grow by an average of 6.2% per year in accordance with the goals outlined in the third National Development Plan (NDP III) from 2023-2025 through accelerated post-COVID-19 economic recovery measures. However, the growth trend has not produced sufficient decent and productive employment to accommodate the expanding labor force. For example, between 1991 and 2019, average employment growth (estimated at 2.7%) lagged significantly behind GDP growth (estimated at 6.8%), indicating that GDP growth was insufficiently propelling job growth. In addition, the employment elasticity for Uganda is estimated to be 0.04%, which indicates that an increase of one percentage point in the GDP growth rate results in an average of 400 jobs rather than 10,000 jobs.

The failure of the economy to transform and create productive jobs to absorb the swiftly expanding labor force is one of the causes of youth unemployment in Uganda. This is attributed to the slowness of Uganda's economy to grow and transform quickly enough from a raw-material subsistence-based economy with low-paying and unreliable jobs, combined with an education system that does not train for skills, creates an army of millions of unemployed and unemployable youth. Consequently, employment growth intensity has garnered substantial consideration in policy discussions and debates.

The youth unemployment rate has increased from 13% in 2016 to 17% in 2021. *(NFLS, 2021).* Youth unemployment and underemployment are persistent challenges that prevent young people from achieving their full potential and contribute to economic and social inequality. Individuals in this particular age cohort. Youths in Uganda exhibit a twofold higher probability of experiencing unemployment in comparison to other age groups. This presents a substantial hurdle for the achievement of the demographic dividend.

Against this background, this study contributes to a greater understanding of Uganda's economic landscape by casting light on the factors

driving or inhibiting growth, productivity, and youth employment. The study provides information for evidence-based policies and interventions that can promote sustainable growth, increase productivity, and reduce youth unemployment in Uganda by elucidating the relationships between these factors. Ultimately, this study plays a crucial role in influencing the socioeconomic development trajectory of Uganda.

2.   THE UNEMPLOYMENT PROBLEM IN UGANDA

The national unemployment rate according to the Uganda Bureau of Statistics *(UBOS) (2021)* is 11.7%, while the youth unemployment is 17%. Relatedly, unemployment increases with the level of education attained as evidenced in the low rates among youth with no education compared to those with primary specialized training and above (8.1% and 21.6% respectively). *(NLFS, 2021).*   While Uganda's youth unemployment does not appear alarming, the rate masks up underemployment and unpaid professional work. For instance, ILO (2017) reported a high youth labour underutilization rate at 67.9% consisting of youth in irregular employment (49%). Other reports have quoted higher youth unemployment at 83%[2].

As Susanto et al. (2022) pointed out, high levels of youth unemployment indicate that some youth are not participating in the production process, resulting in below-average output. This indicates that youth unemployment prevents growth from reaching its optimal level. Less growth indicates that the production process can generate less added value. A low added value indicates a lack of purchasing power, which has negative effects on fundamental requirements such as education and health therefore a high unemployment rate impedes economic development objectives.

However, from Uganda's perspective, less effort has been expended to attempt to explain the above phenomenon. There is limited empirical regularity lent to the productivity intensity, economic growth and youth employment nexus in Uganda. The underlying factors contributing to unemployment in Uganda have been extensively researched on, however, there exists a dearth of research pertaining to the interplay between economic growth, productivity intensity and the issue of unemployment among young individuals in Uganda. In order to grasp how improvements in one area may

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[2] Konrad-Adenauer-Stiftung (2017). Employment, Entrepreneurship and Education in Uganda

positively affect others, this study identifies the potential feedback loops between growth in productivity intensity and youth unemployment.

3.   CHAPTER OBJECTIVES

The general objective of this chapter is to examine the interplay between productivity intensity, GDP growth, and youth unemployment in Uganda. The chapter's specific objectives include;

i)   To examine the impact of productivity intensity on economic growth both at the sectoral and aggregate levels in Uganda.

ii) To examine the relationship between productivity intensity and youth unemployment in Uganda.

4.   DATA TYPE AND SOURCES

The study utilised secondary data from the Uganda Bureau of Statistics (UBOS) website. Specifically, the data was obtained from various surveys conducted by UBOS, including the Uganda National Household Survey (UNHS), the National Labour Force Survey (NLFS), the National Manpower Survey (NMS), and the Uganda Population and Housing Census. The data was also obtained from World Development Indicators (WDI) and the International Labour Organization (ILO) database and the Bank of Uganda.

5.   METHODOLOGY

To conduct the analysis of productivity intensity on economic growth both at the sectoral and aggregate levels in Uganda, GDP growth and employment is decomposed using Job Generation and Growth Decomposition (JoGGs) Tool. According to the World Bank (2012.), the tool provides a comprehensive analysis of GDP growth by dissecting it into its constituent elements, namely the growth resulting from variations in the employment rate, changes in productivity that is measured as output per worker, and shifts in the proportion of the working age population. This study used the Shapely decompositions technique, which is an easy additive form of decomposition. As demonstrated by Bbaale (2013), the Shapely method is preferred for decomposition because it not only decomposes sectoral productivity and employment, but it is also an economy-wide growth accounting framework that traces growth to all key aspects of economic structure.

The initial stage of employment decomposition involves examining the inherent connection between output, employment, and productivity, as described by Rifkin (1994) in the equation (1)

output = employment × productivity…………………………… (1)

The aforementioned identity illustrates the interrelationship between employment and productivity in relation to the attainment of each unit of output. In terms of per capita measures, the increase in in output per capita is attributed to an increase in employment. (World Bank, 2012)

Following the identity in (1), the JoGGs methodology decomposes GDP per capita as:

$$\frac{Y}{N} = \frac{Y}{E} \times \frac{E}{W} \times \frac{W}{N}$$…………………………………………………… (2)

In this context, Y represents the aggregate output, N denotes the overall population, E signifies the total population engaged in employment, and W represents the working-age population. The variables represent several economic indicators where Y/N represents the output per capita, output per worker is represented by Y/E, E/W is the employment rate, and W/N is proportion of the labour force in total population.

6.   RESULTS
6.1 Productivity and economic growth in Uganda

Uganda's GDP in terms of value added has increased by 48% from UGX 100,887 billion in 2016 to UGX 149, 691 billion in 2021. This increase in GDP has been accompanied by a 21 percent increase in employment, with the total number of employed rising from approximately 15 million in 2016 to approximately 18 million in 2021. In addition, the average productivity of labour has increased by 23% between 2016 and 2021 and on the other hand, the employment rate has decreased by 3%. Lastly, the share of the working age population has increased by 5 per cent, from 50 per cent in 2016 to 55 per cent in 2021 (see Table 1).

Table 1: Employment, Output, Productivity and Population. Uganda 2016-2021

	2016	2021	% change
GDP (value added) (in 1's)	100,887,409,961,532	149,691,045,858,001	48
Total population (in 1000's)	37,730	42,886	14
Total population of working age	18,843	23,494	25
Total number of employed	15,033,700	18,151,873	21
GDP (value added) per capita	2,673,931	3,490,441	31
Output per worker	6,711	8,247	23
Employment rate	79784	77262	-3
Share of population of working age	50	55	5

Source: Table obtained using JoGGs Decomposition tool with data from UBOS and ILO

According to the results of the JoGGs decomposition (column 2 of Table 2), the value-added GDP per capita increased by 816,510 between 2016 and 2021. Variations in output per worker and population demographics were the primary causes of this growth. As a result, productivity is Uganda's main engine of growth. Table 2 shows that changes in labor productivity account for 77 percent of the change in per capita value added. The remaining 35% increase can be attributed to shifts in the demographic make-up of the population. The impact of changes in employment rate on the changes in per capita value added was found to be rather insignificant, constituting a mere -12 percent of the overall variation. This statement serves to reinforce the previous claim that the expansion of GDP has not yielded a proportional rise in employment levels.

Table 2: Decomposition of Growth in per capita Value Added, Uganda 2016-2021

	Constant 2016/17	Percent of total change in per capita value-added growth
Total Growth in per capita GDP (value added)	816,510	100
Growth linked to output per worker	631,322	77

Growth linked to changes employment rate	-98,928	-12
Growth linked to changes in the share of population of working Age	284,115	35

Source: Table obtained using JoGGs Decomposition tool with data from UBOS and ILO

As indicated earlier, labour productivity increased by 22.8 percent between 2016 and 2021. This chapter therefore, explores the drivers of labour productivity both at sector level and at an aggregate level. This task is also carried using JoGGs tool with additional data. At the sectoral level, our objective is to examine the impact on the overall output per worker and the percentage contribution to changes in the total output per worker. Based on the data presented in Figure 1, it can be observed that the sectors seeing the most significant development in productivity include trade, utilities, government services, financial services, professional, scientific, and technological activities, financial and insurance activities, as well as construction. The primary factor impacting this phenomenon can be ascribed to the widespread incorporation of cutting-edge technologies in these industries. Conversely, within the agriculture, fishery, and forestry sector, specific sub-sectors such cash crops, food crops, and animals have encountered diminished levels of productivity. This can be attributed to the fact that certain households face limitations in terms of access to cultivable land, preventing them from engaging in productive agricultural practices involving crop cultivation and animal husbandry. Additionally, there are households that lack the necessary knowledge and expertise to optimize land productivity. This includes understanding concepts such as appropriate spacing, timely cultivation of high-yielding crops, effective use of fertilizers, irrigation techniques, soil and water conservation methods, as well as implementing measures for disease and pest control. Furthermore, these households may also lack the skills required for agricultural and animal management, particularly in terms of reproduction and feeding. Moreover, there is a persistently low rate of adoption of new agricultural technologies.

Figure 1: Output per worker by sectors, Uganda 2016-2021
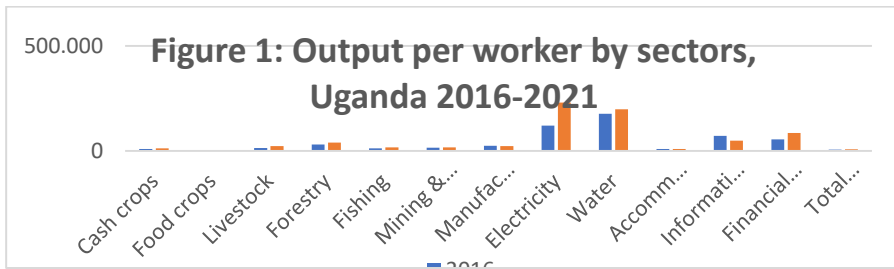
Source: JoGGs Decomposition tool with data from UBOS and ILO

6.2 Dynamically growing sectors in terms of employment

Agriculture serves as the predominant source of employment in Uganda, engaging a substantial workforce of over 8 million individuals. This figure represents a significant proportion, exceeding 70% of the total labor force over both time periods. Subsequently, the services industry has emerged as a significant employer, providing gainful employment to a substantial workforce of more than three million individuals in Uganda. Lastly, industry that comprises of other components such as manufacturing etc employs below 1 million Ugandans as shown in Figure 2. In both 2016 and 2021, industrial output per worker is highest, while agricultural output is lowest. Manufacturing and the service sector follow the industrial sector.

The major challenge in relation to growth and employment at the sectoral level is two-fold: (1) Sectors that have contributed most to the recent economic growth episodes are not necessarily labour-intensive. For example, communication and financial services which have raised their productivity, have become less labour-intensive. Hence, they have not created a significant number of new jobs for a rapidly growing labour force, and (2) Sectors that employ the most important proportion of the workforce have not necessarily achieved high productivity gains. This is particularly the case for the agriculture sector suggesting a significant decline in productivity. The policy dilemma this raises concerns the agriculture sector's ability to provide workers with a living wage. Reduced productivity levels are indicative of decreased incomes for persons involved in the respective economic activities, thereby limiting opportunities for poverty alleviation.

Figure 2: Total Employment per Sector
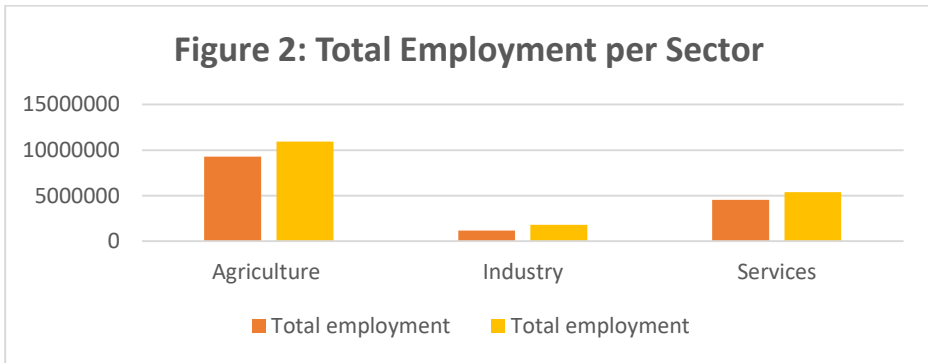
Source: JoGGs Decomposition tool with data from UBOS and ILO

When it comes to job opportunities, the industries experiencing the most significant growth include information and communication (ICT), manufacturing, tourism and recreation, services (including health, education, real estate operations, and home enterprises), mining and quarrying, and public administration and construction. (Refer to Table 3). The sectors experiencing the lowest employment growth include Financial and Insurance Activities, Administrative and Support Service Activities, Professional, Scientific, and Technical Activities, Trade and Repairs, as well as Utilities such as electricity and administrative support services, among others.

Table 3: Employment by sectors of economic activity, Uganda 2016-2021

	Total employment			Employment/pop. of working age		
	2016	**2021**	**% change**	**2016**	**2021**	**% change**
Cash crops	**273,600**	**374,009**	**36.7**	**1452.0**	**1591.9**	**9.6**
Food crops	7,798,000	9,182,802	17.8	41384.1	39085.7	-5.6
Livestock	230,600	282,165	22.4	1223.8	1201.0	-1.9
Agriculture Support Services	690,000	749,452	8.6	3661.8	3190.0	-12.9
Forestry	127,500	155,972	22.3	676.6	663.9	-1.9
Fishing	174,200	199,352	14.4	924.5	848.5	-8.2
Mining & quarrying	**88,200**	**131,878**	**49.5**	**468.1**	**561.3**	**19.9**
Manufacturing	**668,500**	**1,110,838**	**66.2**	**3547.7**	**4728.2**	**33.3**

Electricity	11,400	9,523	-16.5	60.5	40.5	-33.0
Water	14,600	17,542	20.1	77.5	74.7	-3.6
Construction	**405,200**	**547,930**	**35.2**	**2150.4**	**2332.2**	**8.5**
Trade and Repairs	2,049,100	2,285,769	11.5	10874.6	9729.2	-10.5
Transportation and Storage	500,800	588,581	17.5	2657.8	2505.2	-5.7
Accommodation and Food Service Activities	332,600	389,453	17.1	1765.1	1657.7	-6.1
Information and Communication	**29,800**	**55,531**	**86.3**	**158.15**	**236.36**	**49.46**
Financial and Insurance Activities	51,500	53,987	4.8	273.31	229.79	-15.92
Real Estate Activities	14,200	14,953	5.3	75.36	63.65	-15.54
Professional, Scientific and Technical Activities	217,500	102,879	-52.7	1154.27	437.89	-62.06
Administrative and Support Service Activities	130,900	112,581	-14.0	694.69	479.19	-31.02
Public Administration	**100,300**	**162,998**	**62.5**	**532.29**	**693.79**	**30.34**
Education	**410,700**	**593,020**	**44.4**	**2179.59**	**2524.13**	**15.81**
Human Health and Social Work Activities	**105,700**	**136,597**	**29.2**	**560.95**	**581.41**	**3.65**
Arts, Entertainment and Recreation	**26,100**	**34,981**	**34.0**	**138.51**	**148.89**	**7.49**
Other Service Activities	**382,900**	**674,357**	**76.1**	**2032.05**	**2870.34**	**41.25**
Activities of Households as Employers	199,800	184,723	-7.5	1060.34	786.25	-25.85
Total	**15,033,700**	**18,151,873**	**20.74**	**79784.00**	**77261.74**	**-3.16**

Source: Table obtained using JoGGs Decomposition tool with data from UBOS and ILO

6.3   Employment Elasticities and Youth Employment

The concept of employment elasticity refers to the proportional change in employment resulting from a one-percentage-point increase in Gross Domestic Product (GDP). As a result, more labor-intensive economic growth is linked to higher levels of employment elasticity. Table 4 compares changes in productivity with changes in employment at sector level. Sub-sectors such as agriculture (cash crops, food crops, livestock, agricultural support services, forestry, fishing), construction, trade and repairs, real estate activities, mining have had positive increases in productivity, accompanied by positive increases in employment. This implies that GDP growth in these sectors has resulted in job creation. Based on a literal interpretation, these estimates indicate that these industries have a significant impact on employment, implying that implementing policies that foster a favorable

climate for their growth could effectively tackle the issue of youth unemployment in Uganda. Therefore, Government of Uganda should prioritize investment and spending in these sectors as their growth elasticities are positive leading to an increase in employment growth.

In contrast, sectors that have registered a decline in employment as shown by the negative employment elasticities of growth include; utilities (specifically electricity), accommodation and culinary services, financial services, administrative and government activities, professional, scientific and technical activities, as well as education and other service activities. It is possible that investments in these industries will not result in youth employment gains.

The final category is of sectors in which employment has increased despite productivity declines. These include manufacturing, education, professional and scientific endeavors. These expenditures and investments in these sectors are likely to generate positive returns youth employment-related spin-offs.

Table 4: Employment Elasticities for Uganda 2016 2021 Changes in Output per Worker by Sectors. Uganda 2016-2021   **Employment changes by Sector (2016-2021)**

	2016	2021	% change	2016	2021	% change	Sectoral employment Elasticities of Growth
Cash crops	9,327	12,121	30	273600	374009	37	1.23
Food crops	1,718	2,006	17	7798000	9182802	18	1.06
Livestock	14,350	22,892	60	230600	282165	22	0.38
Agriculture Support Services	24	28	19	690000	749452	9	0.45
Forestry	31,393	40,308	28	127500	155972	22	0.79
Fishing	12,526	16,568	32	174200	199352	14	0.45
Mining & quarrying	15,160	17,550	16	88200	131878	50	3.14
Manufacturing	25,199	24,001	-5	668500	1110838	66	-13.92
Electricity	121,007	230,762	91	11400	9523	-16	-0.18
Water	176,573	198,909	13	14600	17542	20	1.59
Construction	15,075	15,933	6	405200	547930	35	6.19
Trade and Repairs	4,798	5,851	22	2049100	2285769	12	0.53
Transportation and Storage	7,230	8,811	22	500800	588581	18	0.80
Accommodation and Food Service Activities	9,656	9,163	-5.11	332600	389453	17	-3.35
Information and Communication	71,472	49,610	-30.59	298000	555531	86	-2.82
Financial and Insurance Activities	55,756	85,883	54.03	51500	53987	5	0.09
Real Estate Activities	458,817	686,457	49.61	14200	14953	5	0.11
Professional, Scientific and Technical Activities	10,714	30,463	184.32	217500	102879	-53	-0.29
Administrative and Support Service Activities	14,523	27,978	92.65	130900	112581	-14	-0.15
Public Administration	26,696	29,315	9.81	1003000	1629980	63	6.37
Education	11,630	9,906	-14.82	410700	593020	44	-2.99
Human Health and Social Work Activities	31,313	40,301	28.71	1057000	1365997	29	1.02
Arts, Entertainment and Recreation	5,023	6,651	32.41	26100	34981	34	1.05
Other Service Activities	7,792	5,389	-30.8	382900	674357	76	-2.47

| Activities of Households as Employers | 4,461 | 6,378 | 42.96 | 199800 | 184723 | -8 | -0.18 |

Source: Table obtained using JoGGs Decomposition tool with data from UBOS and ILO ** Activities highlighted in green have positive employment elasticities**

7.   CONCLUSION AND RECOMMENDATIONS

This Chapter was devoted to analyzing the employment-growth profile of Uganda from a youth employment perspective. Using secondary data from both UBoS and ILO, and applying a number of techniques the following conclusion is made;

Firstly, the growth trend in Uganda has not created enough decent and productive jobs to keep up with the rising labour force. The changes in the employment rate made a minimal contribution of -12 percent to the overall change in per capita value added. This statement contributes to strengthen the preceding assertion that the expansion of Gross Domestic Product (GDP) has not resulted in a commensurate increase in levels of employment. The primary factor driving this positive trajectory can be ascribed to the expansion to the growth of the services sector, with the industry sector also contributing to a lesser extent. At the macroeconomic level, the expansion of productivity and alterations in population demographics are driving economic growth. The degree of job intensity within the services sector is lower than that of agriculture, indicating that growth in services GDP does not lead to a proportional increase in employment.

Secondly, agriculture employment growth is correlated with higher gains in value added per capita GDP. Therefore, the sector retains the potential for poverty reduction especially for the youth whose unemployment and underemployment levels are high. The high number of youth engaged in subsistence agricultural or informal and low-productivity continue to register a significant obstacle to the Country's development efforts. One of Uganda's biggest development concerns is finding ways to address the country's growing shortage of opportunity for young people to find meaningful jobs. As such, measures need to be taken to promote employment in agriculture. To achieve this, there is therefore need to conduct a thorough agriculture value chain analysis to determine the employment potential of different value chains and impediments to harnessing these opportunities.

Thirdly, given the continuous expansion of the service sector, it is probable that employment growth and elasticities would remain at elevated

levels. Nevertheless, it is crucial to analyze the degree to which the informal sector and low-wage work contribute to both the increase in employment rates and the reduction in unemployment levels. The services sector is a top priority for the creation of jobs because younger and better educated people tend to go toward this industry for employment. Therefore, policies and initiatives that promote financial inclusion, improved skills, and increased competition must be prioritized by the Government of Uganda. This will lead to increased economic growth and in particular; better jobs in the services sector for Uganda.

Lastly, the Government of Uganda should implement youth employment policies that include the creation of jobs that are labor-intensive as opposed to labor-replacing in the main industries such as manufacturing, mining and quarrying and construction among others.

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CHAPTER 5

E-GOVERNANCE AND QUALITY SERVICE DELIVERY IN NIGERIAN LOCAL GOVERNMENTS (A STUDY OF YEWA SOUTH LOCAL GOVERNMENT)

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Background to the Study

There is clear notion that the quality of service delivery at Local government level in Nigeria is generally poor and some services are not even existing again in Nigerian Local government, the essence of the creation of the Local Government is basically to provide certain essential services for rural populace, the paradox of the existent of the Local government now is that the purpose of their establishment cannot be achieved. Though there are certain factors responsible for the poor service delivery which bordered majorly on non- adoption of ICT in the administration of LG, corruption, leadership, poor revenue generation, high level of illiteracy among other.

Other levels of government such as federal and state government had adopted E-governance for efficient service delivery to promote and aim improve supply of services for the benefit of the public. Many ministries have contributed to this movement by enacting regulations that promote the technological advancements (Adiele 2017).

The adoption and application of Information and Communication Technology in governance to increase efficient service delivery, communication transactions, exchange of information among other is what is generally termed e-governance. In the same vein, Onuigbo and Eme (2015) affirmed that E-Government is now a widely established methodology that uses ICT to enhance transparency, swiftly deliver information to all residents, increase administrative effectiveness, and enhance public services like power, transportation, health, water, security, and municipal services.

In order to improve service delivery through the adoption of ICTs in governments,   it   is   typically focuses on four main dimensions. which are: G2C (Government-to-Citizens), G2B Government-to-Business), G2G (Government-to-Government), Intra-government. These dimensions are essential to efficient service delivery at Local Government level (Islam and Ahmed, 2007).

There are some challenges facing the adoption of e-governance at the local government some of which are lack of social infrastructure, low level of technology, high level illiteracy, lack of political will and cost implication. In addition, the IMF in its report 2001 stated that e-governance was new to both developed and developing nations in which it basically first applicable to higher levels of government and later to the local government, this is evident

that e-governance application may not be applicable at the moment to Local Government.

The objectives of this paper are to examine the effect of e-governance on efficient service delivery at Local government level in Nigeria. Also to identify some of the challenges of e-governance at the Local government level and to proffer likely to solutions to the identified challenges.

Review of Literature

The adoption and application of Information and communication Technology in the conduct and management of Public affairs for efficiency, transparency, accountability and bringing government closer to people is called "**E-GOVERNANCE"** this simple definition will aid lucid understanding of the concept and guide further conceptual clarification of the concept. European Commission 2003 in Fatile 2012 asserted " e-governance is the use of Information and Communication Technologies in Public admnistations combined with organized change and new skills in order to improve oublic services and democratic processes and strengthen support to public policies".

Sithole and van der Waldt (2016) argued that the technological advancements of the internet and the rise of the knowledge society have introduced new forms of exchange and collaboration between citizens and governments worldwide. This sentiment is echoed by Monga (2008) and Nkwe (2012), who point to the benefits of e-governance, such as quality service delivery, improved transparency and information management, increased ICT use in other sectors of society, cost savings in public affair management, time savings, and finally increasing accountability and transparency in government. E-governance offers a number of benefits, including information dissemination, citizen participation, citizen feedback, monitoring and evaluation of government projects, and increased political accountability. Governments across the globe are in quest of finding alternative ways to increase public services delivery to be more efficiently and effectively delivered, the adoption of electronic governance (e-governance) in the local governments tier is an option often discussed, although the expectations often differ (Omeire & Omeire, 2014). For instance, many people wish for equitable public service delivery, while others hope for improved planning throughout a metropolitan area. Some people also expect lower service delivery costs.

Quality service delivery (QSD) on the other way refers to any planned activities put in place in an organization to ensure the best rate of efficiency and quality respond to customer/consumer expectation is met as well as putting machinery in place to ensure that standard and quality requirements for public service is delivered. There are essences of creation of Local government and that was best expressed in efficient-service delivery theory, if those services believed can be performed by the local government are delivered with utmost satisfaction of local people, then it can be concluded that there is quality or efficient service delivery.

Challenges of e-governance at local government level in Nigeria

As pointed earlier, there are diverse of challenges bedeviling the adoption of e-governance at the local government in Nigeria, some of which are lack of social infrastructure, low level of technology, high level illiteracy, lack of political will and cost implication. In addition, the IMF in its report 2001 stated that e-governance was new to both developed and developing nations in which it basically first applicable to higher levels of government and later to the local government, this is evident that e-governance application may not be applicable at the moment to Local Government.

E-governance and Quality service delivery

Nigeria, like other countries in the worldwide community, seeks to have a standard of e-governance. The goal is to build the ICT structure to a level where communication and data flow between different parts of society. Aneke (2013) noted that Nigeria has employed various tactics to amplify its ICT sector, making it the fastest-growing market on the African continent. He said Nigeria must apply e-governance across all sectors for efficient public services and easy information flow between them.

Information and communication technologies (ICTs) unquestionably offer Nigeria and other emerging nations incredible potential in terms of providing public services and increasing citizen satisfaction. Particularly convincing is the relationship between the use of ICTs and the improvement of governmental operations for the purpose of achieving social development goals. If these nations are to have better, more effective governance, Gupta and Jana (2003) contend that the adoption of ICTs by governments is not a choice but a requirement.

An investigation by the European Commission highlighted how ICTs help to foster good governance in the knowledge society; create transparent, accountable governments; ensure public services are accessible to all; promote a productive public sector providing maximum value for taxpayers' money; reduce waiting times; minimize errors; offer more professional face-to-face service and create rewarding jobs for civil servants (Nweke, 2007a; 2007b).

Some of the benefits of E-governance include the following

Cost Reduction

Reduction in the cost of Administration is one of the bunches of credits of e-governance. The use of ICTs at the Local government level can lead to a considerable decrease in information processing costs. This approach makes it easier to share information more quickly, which lessens the need to collect data manually. Of course, manual data collection comes with additional costs associated with traveling and other allowances.

Open, accountable, and participatory Government: E -government initiatives in Nigeria have already proven to give citizens better access to information from public authorities. This improved public service delivery allows citizens to be more involved in local administration, which is facilitated by ICTs. As individuals and public officials connect via e-governance processes, this option also promotes decision transparency. Through these electronic forums and websites, citizens and other service recipients can provide ideas and suggestions. Public employees and individuals now have access to formerly classified official information and transactions, thanks to ICT improvements brought about by e-government programs.

Fast and Accurate Service Delivery

The conventional methods of service delivery within the Federal Civil Service can be quite time-consuming due to the intricate bureaucracy in Nigeria. Fortunately, utilizing Information and Communication Technologies (ICTs) helps to decrease bureaucratic inefficiencies, shorten wait times, and ensure fast and accurate service delivery.

Data analysis

QUESTIONS	SD	D	U	SA	A	% AGREE	% DISAGREE	TOTAL
Application of ICT can aid service delivery at Local Government level in Nigeria	10	3	-	100	20	92.3	7.7	133
In Nigeria, e-governance is a technique for efficient local government governance.	30	20	1	70	12	61.7	38.3	133
Citizens can get online services from the Local Government	14	7	-	80	32	84.2	15.7	133
Transparency and accountability at local government can be promoted by e-governance	24	11	-	56	42	73.7	26.3	133
There is no enough ICT available to adopt e-governance at local government yet	-	16	10	62	45	80.5	81.2	133
Mass illiteracy is a challenge to e-governance at local government level.	7	-	-	112	14	94.7	5.3	133
The cost of ICT is high for local government to adopt e-governance	11	23	-	72	27	74.4	25.6	133
Local government can brace-up for ICT gadget to adopt	32	11	-	56	34	67.7	32.3	133

e-governance								
At the local government level, mass orientation can increase the acceptance of e-governance.	-	28	-	75	30	78.9	21.1	133
Local government can solicit for grant, aid and support to finance its cost challenge in adopting e-governance	-	-	-	83	53	100	-	133

The above table shows that 92.3 % of the respondent agreed that adoption of ICT can boost service delivery and 61.7 % of the respondent are of the opinion that e governance is one of the techniques for boosting service delivery at local government level, 84.2 % agreed that citizen can access online services from the local government while 73.7% of the respondent agreed that e-governance can aid transparency and accountability. Lack of ICT facilities was identified as one of the challenges as 81.2% has agreed. High level of illiteracy was agreed to be another challenge facing e-governance at local government, cost was also considered as a challenge as 74.4% agreed. 67.7% of the respondent agreed that local government can brace up for ICT gadget for e-governance. 78.9% of the respondent agreed that mass orientation and literacy program can boost acceptance and adoption of e-governance, finally, 100% of the respondent greed that local government can solicit for grants, aid and support to cost challenge.

CONCLUSION

Based on the finding of this study, the study concluded as thus. Cordial executive-legislative relationship will be of great importance to the local communities and could yield more benefits if the principle of separation of power is promoted to ensure the independence of each arm to promote interdependency. Executive-legislative conflict at the local government prevents development of local community. The pace of social, economic and political development will depend on the healthy relationship between executive and legislative relationship. However, experience has shown that

relationship between the executive and legislature sometimes appears to be conflictual especially when one arm feels superior and also dominates the other arm. In the light of this the study makes some recommendations to ensure a positive working relationship between the executive and legislature in the local government.

Recommendations

- Separation of powers principles should be respected and scrupulously followed by both the administration and the legislative. They ought to work together wherever possible to advance good governance.
- The executive and legislative arms of local government should regularly invest in capacity building in the fundamentals of conflict resolution and management in order to enhance both their conflict management and problem-solving abilities.
- The legislature should develop new methods and approaches to increase its oversight role, enabling it to keep a close eye on the executive branch's departments on a regular basis. The executive will be forced to work more and become more customer-focused, accountable, and transparent as a result of this.
- The legislature should put more effort into drafting laws that will advance local government system of good governance.
- The executive should focus its efforts on developing and enforcing policies to meet the needs and aspirations of the suffering local masses that are ensnared in the poverty cycle.
- In order to resolve their disagreements, the legislative and the executive should both consider it vital to always engage in communication as opposed to directly confronting one another, which typically results in an impasse in the process of developing and implementing policy.
- The legislature should pass laws giving it the authority to reprimand the executive's abuses and activities that are detrimental to good government.

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