

## AN ASSESSMENT OF THE DETERMINANTS OF GAMBIA'S AGRICULTURAL EXPORTS PERFORMANCE

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### *Abstract*

*Due to the contribution to earnings from foreign exchange and the total labour force which stands at 70 and 75 percent, agriculture ranks high as one of the main sources of income for the Gambia. However, her agricultural exports - majorly groundnuts, cashew nuts and fisheries - have been subjected to quantity, price fluctuations and consequently low competitiveness in the international market. For this reason, this study assessed agricultural export performance of the Gambia with data from the Gambia Bureau of Statistics (GBoS), the Ministry of Trade Industries and Employment of The Gambia (MoTIE) and other literature. The study concluded that in the Gambia, economic growth and agricultural performance are related and move in the same direction with output level, trade openness, competitive of produce in international market among the key factors that determine agricultural export performance in the Gambia.*

**Key words:** agriculture, export performance, foreign exchange, labour force, the Gambia

## INTRODUCTION

One of the similar characteristics of modern day economy is the willingness to tap well into the opportunities of international trade. With that in mind, why no economy is exempted from the international trade is largely understood without ambiguities but rather, countries have continued to tap into the aspects of international trade for which they are largely at advantage whether in comparative or absolute terms.

For The Gambia, her dominant strategy from inception, in international trade, is principally agriculture-dependent. Economic data overtime shows a consistent relationship between various economic variables and agriculture. For example, about 23% of Gambian GDP is derived from agriculture, consisting the employment opportunities and the main source of livelihood for 75% of her population. Furthermore, half of the country's food demands are covered by agriculture which also contributes substantially to total exports in the country, contributing 70% of the foreign earnings. While 91% of the population are considered extremely poor,

72% of the poor depend entirely on agriculture.

As a result of its role in food security and poverty reduction tendency, the agricultural sector is regarded as a main drive for investments, wealth creation and economic growth.

The Gambia boasts of a comparative advantage on several of its agricultural produce, such as lowland rice, groundnuts, and coarse grains as well as vegetable production.

With regards to agricultural GDP, subsectors such as livestock, groundnuts and other crops accounts for 24 per cent, 23 per cent and 43 per cent, while fisheries and forestry collectively, account for 6 per cent of agricultural GDP [7].

The Ebola and the political crises alongside erratic rainfall contributed to the shock in the economy between 2015 and 2016 [10]. Following the occurrence, a re-assessment of the relationship that exists between agricultural exports and the economic growth is necessitated. Thus, opening a research gap to fill in this study.

## MATERIALS AND METHODS

The materials for this study are both statistical data from the Gambia Bureau of Statistics [3]. A data set for the Gambia's GDP, agricultural exports with specific attention to groundnut, cashew nuts and fisheries from 2007 to 2016 are obtained.

The method will be descriptive statistics with the use of table and statistical tools such as tables and charts. Furthermore, the correlation coefficient analysis is used to determine the relationship between GDP used as proxy for economic growth and the total agricultural exports for period 2007 to 2016. The sign and size of ( $r$ ) are explained with respect to empirical review of existing literature in order to highlight exports determinants of the agriculture produce of concern, in the Gambia.

## RESULTS AND DISCUSSIONS

The correlation coefficient for the data analysed in this study is positive and also shows that a linear relationship exists between the GDP and agricultural exports (for fish and fisheries; groundnuts and cashew nuts) which means that both move in the same direction. The numerical value of  $r$  in the result (0.75) indicates the strength of the linear relationship that exists between both variables. In other words, there is a strong relationship between both (Table 1).

Table 1. Correlation Coefficient for Gambia GDP and Agricultural Exports

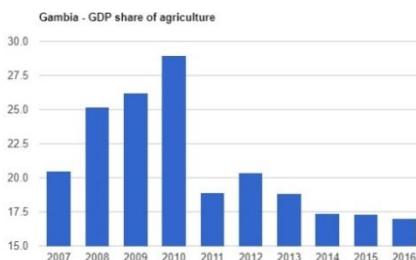
Variables	Number of Observations	Pearson coefficient ( $r$ )	correlation
GDP OF A. E	10 (2007 -2016)	0.752115304286721	

Source: Own Calculation

KEY: A.E: Agricultural Exports

However, the Pearson Correlation Coefficient does not account for which of the variables affect each other but rather states the kind of relationship that exists between them. From the coefficient, the GDP - agricultural export relationship is in the same direction, which means that a growth in one is associated with

the growth of the other, holding all other factors constant.



Source: TheGlobalEconomy.com, The World Bank

Fig. 1. Gambia – GDP share of agriculture

Source: The World Bank.

Figure 1 above illustrates the share of agriculture in the Gambia GDP from 2007 to 2016. From 2007 to 2010, the contribution of agriculture to the GDP was increasing but took a downturn in 2011, rose again in 2012 but declined further from 2012 to 2016.

Yaffa [11] observed that there was a huge recession in agricultural production in the year 2011 which was a direct consequence of drought experienced. The drought was considered the most severe experienced in the space of 20 years prior to that year.

Despite aiming to become a middle-income country by 2020, The Gambia remains, based on observed indices of development, a least-developed country. However, that has not prevented the country from growing. The vision 2020 of the Gambia set out some objectives for agriculture and natural resources [5]. Between 2004 and 2009, agriculture contributed an average 24.8% to the GDP and in 2010, the figure went up to 30%. Agriculture also provides employment and livelihood for over 75% of the countries labour force and also led real GDP growth from an average of 5.9% between 2003 and 2006 to about 7% in 2007 and 6.3% in 2008. In recent times, the agricultural sector's output and growth are accounted for by increasing government budgetary resources. For instance, a major area of focus for the ANR policy in the Gambia which was meant to last from 2006 to 2015, was enhancement of relationships between the agricultural sector and high value markets [5][9].

Empirical studies on the determinants of exports have varied among studies in the past. Observations from the findings of some of these studies, formed the basis for our discussions.

Generally, the empirical review is on two fronts; determinants of agricultural exports that were centred on Africa countries and those that with specific reference to The Gambia. The areas of divergent and convergent views are also explored to point out determinants that hold in the case of the Gambia.

In a study covering a 25-year period from 1984 to 2009 on the agricultural export trade in Ghana using the Ordinary Least Square (OLS) technique, results revealed that a positive connection exists between agricultural exports and determinants such as; production, openness to trade and index of competitiveness [1]. However, for The Gambia, these determinants have been mixed with limited alternatives due to interferences in the sector which have made farmers vulnerable and subjected to yield and price fluctuations [8].

While Gambian agriculture is largely subsistence, farmers rely on local markets to sell their farm surpluses which attract low prices to middlemen from Senegal and elsewhere in the sub-region. Farmers are therefore, constantly faced with market risks, the use of primitive farm inputs and little income earnings.

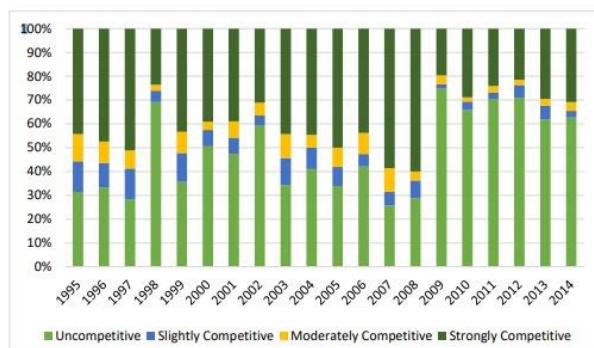


Fig. 2. Gambia's agricultural products competitiveness  
Source: Gibba (2017).

With regards to the competitiveness of Gambia's agricultural product exports, groundnuts and its derivatives and cashew

nuts constitute 50% of the total exported products during the period 1995 – 2014 in the Gambia with the country's trade openness in the global market minimal due to its size [4].

In order to enhance a higher volume of agricultural exports and limit the fluctuating export competitiveness, Gibba [4] suggested robust policies and measures to stimulate higher export stability (Fig.2).

The competitiveness of agricultural products between 1995 and 2014 is shown in the figure above. Prior to 2009, the products' competitiveness was on a constant fluctuation, but from 2009 onwards a largely uncompetitive trend was observed.

Gbetnkom et al. [2] observed in their study that economies that are price – takers in the market of agricultural products have increased in export supply as a way of increasing export revenue.

The results in their study showed that, producer prices are important in driving export supply. To this end, availability of credit to farmers was highlighted.

The availability of credits to Gambian farmers is also a factor to increase the levels of agricultural production and by extension surpluses necessary for an increase in exports. Ndubuto et al. [6] studied the determinants of agricultural exports in Nigeria and found that world export volume, exchange rate and output were determinants of exports from Nigeria.

Their findings were also consistent with that of Gbetnkom et al. [2], where results of OLS technique in the study indicated that output and the past value of agricultural exports influences current period agricultural exports. General observations from the studies shows Gambian economy's dependence on agriculture is high, while the sector still remains subsistent and as such, the amount of revenue from agricultural export is relatively low.

Production level, productivity, trade openness, competitiveness of produce in international and exchange rate were identified as significant determinants of agriculture performance both on domestic fronts and with regards to foreign trade, particularly exports.

## CONCLUSIONS

The role of agriculture in the economy of The Gambia is prominent and with respect to the overall economic performance the agricultural sector is vital. However, the sector remains largely subsistence; yet to attain the expected pull for the economy. Yields are generally low, implying that there is need for greater productivity and mass production required for the better participation in international trade associated with agricultural exports. As the highest employer of labour, passive transformation in the sector will bring about development in the overall economy.

In this study, it was observed that for The Gambia, a positive relationship exists between the GDP and agricultural export. However, the study has been constrained to the use of correlation analysis between the two due to insufficient data. As for the determinants of agricultural exports, previous studies on the subject matter provided the basis for their examination. The results from previous studies showed that, production quantity and value, trade openness, competitiveness, land use policies, access to financial credit and pricing are significant determinants of agricultural performance for domestic consumption and export.

The authorities should implement policies that are targeted at mass production in agriculture through credits availability to farmers; land use laws and the stability regarding the country's currency.

The results of the study have pointed out the nexus between GDP growth and agricultural exports through the use of correlation analysis technique.

For The Gambia, agricultural export products' competitiveness is identified as a key determinant of export increment. Consequently, it is recommended that policymakers in the agricultural sector should devise value adding mechanisms capable of pulling exports up. Such mechanisms will increase total revenue from agriculture and stimulate local consumption. Also, considering that value added products attracts

more value, such a step by policymakers will amount to huge increase

Similarly, the government should ensure that there exist only a small margin between the producer prices and the world prices of the major agricultural export products, as this enables farmers to substantially benefit from international trade.

Furthermore, given that majority of farmers in agricultural export products' production are from the low income ebb of earners in the country, there is lack of financial power for adequate investment in agriculture. The provision of credit or financial aid which could be through subsidy on inputs for farmers, would attract increase in production and enhance to surpluses that can be exported.

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