

# DETERMINANTS OF MAIZE PRICE AMONG SMALLHOLDER FARMERS IN AKURA SUBCOUNTY ALEBTONG DISTRICT

## ACENG DILISH

REG NO: BU/UP/2021/0218

EMAIL: dilishaceng62@gmail.com

**Tel:** 0787691928

A SPECIAL PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF AGRIBUSINESS
AND EXTENSION IN PARTIAL FULLFILLMENT OF THE REQUIREMENT FOR THE
AWARD OF THE DEGREE OF BACHELOR OF AGRIBUSINESS OF BUSITEMA
UNIVERSITY

OCTOBER 2024

# **DECLARATION**

I declare that this study is exclusively my original work, has not been previously	submitted or
published, and is presented solely for the purpose of this degree.	
Signature:	
Date: 4/11/2024	

ACENG DILISH

# **APPROVAL**

This re	port is	respectfully	submitted	to the	Head	of i	Department,	Agribusiness	and	Extension,
followin	ng appr	roval from m	y academic	super	visor.		1	S		

Signature:

Date: 0 11 2024

Mr. IISA AUGUSTINE

## **DEDICATION**

I lovingly dedicate this work to my parents, Akello Evelyn and Molo Charles, my uncle Patrick Omara, my friend Engwenu Job, and my entire family, who have been my pillars of strength. I also extend heartfelt gratitude to my supervisor, Mr. Iisa Augustine, and all my lecturers for their guidance.

## ACKNOWLEDGEMENT

I extend heartfelt gratitude to the entire BUAC staff, administrators, and my colleagues for their invaluable support throughout this special project. Particular appreciation goes to my supervisor, Mr. Iisa Augustine, for his dedicated guidance and meticulous review. Additionally, I thank course leaders BAB Osuna Solomon and Zaituna for expertly coordinating our program.

# TABLE OF CONTENT

DECLARATION	i
APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	1
CHAPTER ONE	2
1.0 Introduction	2
1.1 Background	2
1.2 Problem statement	3
1.3 RESEARCH OBJECTIVES	3
1.3.1 Overall objective	3
1.3.2 Specific objectives	3
1.4 Research questions	3
1.5 Significance	4
1.6 Justification	4
1.7.0 Scope	5
1.7.1 Content scope	5
CHAPTER TWO	6
2.0 Literature two	6
2.1 Introduction	6
2.2 Socio-economic characteristics of maize farmers	6
2.3 Factors influencing maize price in the maize market	7
2.4 Constraints associated with maize marketing	8
2.5 Research gap	8
CHAPTER THREE	10
3.0 METHODOLOGY	10
3.1 Research design.	10
3.2 Research approach	10

3.6 Sample size	10
3.3 Description of study area	11
3.4 Description of the study population	11
3.5 Sampling strategies	11
3.7 Data collection methods	11
3.8 Data collection tool	11
3.9.1 Objective one	12
3.9.2 Objective two	12
3.9.3 Objective three	12
3.10 Data presentation	12
3.11 Limitation of the study	13
CHAPTER FOUR	14
4.1 Objective 1. Socio-economic characteristics of maize farmers	14
4.2 Objective two	17
4.3 Objective three	19
CHAPTER FIVE	21
CONCLUSION AND RECOMMENDATION	21
5.0 Introduction	21
5.1 Conclusion	21
5.2 Recommedation	21
References	23
APPENDICES	26
Appendix one	26
"Research Questionnaire	26
Annendiy 2	21

# LISTS OF TABLES

Table 1 Showing socio economic characteristics of maize farmers	. 14
Table 2 showing other socio economic characteristic	. 15
Table 3 Model summary of regression run through multiple linear regression	. 17
Table 4 showing results run through multiple linear regression model	. 17
Table 5 showing constraints associated with maize marketing	. 19
Table 6 showing research questionnaire	. 27

# LIST OF FIGURES

Figure 1 showing the map of Alebtong District showing sub counties	31

## LISTS OF ACRONYMS

ANOVA Analysis of variance

BAB Bachelor of Agribusiness

BUAC Busitema University Arapai Campus

FAO Food and Agriculture Organisation

IMF International Monetary fund

MAAIF Ministry of Agriculture and Animal Fisheries

SSA Sub Saharan Africa

SPSS Statistical packages for Social Sciences

GDP Gross Domestic Product

#### **ABSTRACT**

Following its rapid global spread, maize has emerged as the leading staple cereal crop worldwide. However, comprehensive data on price determinants in Uganda remains scarce. This study aimed to investigate the key factors influencing maize prices among smallholder farmers in Akura Sub County, Alebtong District. The specific objectives were based on describing the socio-economic characteristics. Analysing factors influencing maize price and identifying constraints associated with maize marketing. The study was conducted using randomly and convenience sampling technique to select 137 respondents selected from the study area. To accomplish the study's objectives, descriptive statistical methods were employed. The analytical tools used to achieve the stated objectives were Descriptive statistics and Multiple Linear regression model using IBM SPSS version 20. The descriptive study revealed that the majority were males, the majority had no access to credit facilities, the majority had no extension training, the majority had primary education and the majority were youth. The result of the regression analysis for the factors influencing of maize price showed that; household income, market distance and storage practices were statistically significant, implying that they have effect on the price. While marketing experience was not significant. However, on the constraints associated with the maize marketing; price fluctuation was ranked first and was the major constraint, followed by poor infrastructure like road and high cost of transport. It is therefore recommended that the government put more effort to support agriculture to increase productivity of maize.

#### **CHAPTER ONE**

#### 1.0 Introduction

#### 1.1 Background

Its rapid global expansion, maize has become the leading staple cereal crop, surpassing 1 billion metric tons in annual production (Garcia Lare & Serna-Saldivar, 2019). Globally, maize is the second most produced crop, with 1.21 billion metric tons harvested. In sub-Saharan Africa, maize production is increasing, with more land allocated for small-scale farming to meet rising food demands (Santpoort, 2020). However, growing demand and production gaps have exacerbated market volatility, Following driving up global maize prices (Shiferaw et al., 2011). Initially cultivated for subsistence, maize has evolved into a major commercial crop, supplying essential raw materials to various agro-based industries worldwide (Iken & Amusa, 2004). Notably, corn has become the leading grain, with global production reaching 1.2 billion tons (M. Shehbandeh, 2023). The pricing of agricultural raw materials is influenced by factors such as production's biological and technical aspects, supply elasticity, intermarket connections, and global price relationships (Hamulczuk & Stańko, 2014).

In East Africa, particularly Kenya, maize is the primary staple food, occupying 40% of cultivated land, contributing 24% to GDP, and 12.65% to agricultural GDP (FAO, 2016). Smallholder farmers account for over 7.5% of maize production, although only 20% of their yield is marketed (Chemonics, 2010). Kenya's per capita maize consumption averages 103kg/person/year (2012-2014), surpassing Tanzania's 73kg, Ethiopia's 52kg, and Uganda's 31kg (FAO, 2016). In Uganda is a significant maize producer, with primary production zones located in the western, eastern, northern, and southeastern regions (NR/IITA, 2002). Consequently, maize has become a vital source of household income and foreign exchange earnings through exports. Notably, white maize is primarily cultivated for commercial purposes and exported within the region (FEWS NET, 2023). Uganda, maize provides over 40% of calories consumed nationally and is the most vital cereal crop.

Fluctuations in maize prices can have severe economic, social, and political repercussions (Ayinde et al., 2019). Recently, government subsidies on domestic fuel and public transportation helped stabilize maize prices (Namata & Iliza, 2022). Key factors influencing current maize prices include previous price levels, maize production volumes, and past import values.

#### References

- FEWSNET. (2021). REGIONAL SUPPLY AND MARKET OUTLOOK: East Africa: Maize. *The Lancet*, 1–12.
- Hamulczuk, M., & Stańko, S. (2014). Factors Affecting Changes in Prices and Farmers' Incomes on the Polish Pig Market. *Problems of Agricultural Economics*, *341*(4), 135–157. https://doi.org/10.5604/00441600.1151785
- Iken, J. E., & Amusa, N. A. (2004). Maize research and production in Nigeria. *African Journal of Biotechnology*, *3*(6), 302–307. https://doi.org/10.5897/AJB2004.000-2056
- Okechukwu, D., Chinecherem, E., & Raphael, J. (2020). *Economics of pineapple production in Awgu Local Government Area of Enugu State*, *Nigeria*. 8(November), 245–252. https://doi.org/10.33495/jacr
- Pinstrup-Andersen, P. (2019). Foreword. In *Transforming Agriculture in Southern Africa:*Constraints, Technologies, Policies and Processes. https://doi.org/10.1300/j144v06n01\_02
- Rajamanickam, S., Chandrakumar, M., & Rohini, A. (2022). Constrains faced by the farmers in marketing of maize in Tirupur district of Tamil Nadu. 11(6), 2338–2340.
- Santpoort, R. (2020). THE drivers of maize area expansion in sub-Saharan Africa. How policies to boost maize production overlook the interests of smallholder farmers. *Land*, 9(3). https://doi.org/10.3390/land9030068
- Shiferaw, B., Prasanna, B. M., Hellin, J., & Bänziger, M. (2011). Crops that feed the world 6. Past successes and future challenges to the role played by maize in global food security. *Food Security*, *3*(3), 307–327. https://doi.org/10.1007/s12571-011-0140-5
- State, K., Muhammad, A. T., Owolabi, J. O., Odedokun, V. O., & Yusuf, L. O. (2022).

  Estimation of Factors Influencing Price of Maize Among Smallholder Farmers In Giwa

  Local Government Area Of. 9(1), 1–7.
- Tegegn, H., Senbetie, T., Abrham, S., Tagese, A., & Sisay, B. (2024). Socio-Economic Determinants of Smallholder Farmers' Coffee Production in Wolaita Zone, Ethiopia.

- African Journal of Food, Agriculture, Nutrition and Development, 24(6), 26798–26818. https://doi.org/10.18697/ajfand.131.24465
- Unsal, F., Spray, J., & Okou, C. (2022). Staple Food Prices in Sub-Saharan Africa: An Empirical Assessment. *IMF Working Papers*, 2022(135), 1. https://doi.org/10.5089/9798400216190.001
- Alabi, O. O., Oladele, A. O., & Oladele, N. O. (2020). Economic Market Decisions Among Marginal Maize Farmers in Abuja, Nigeria: Applications of Double Hurdle Model and Factor Analysis. *Russian Journal of Agricultural and Socio-Economic Sciences*, *104*(8), 114–125. https://doi.org/10.18551/rjoas.2020-08.14
- Ayinade, O. E., Aina, I. V., & Ayinade, K. (2019). Analysis of determinants of maize price variations in Nigeria (1978 2014). *Croatian Journal of Food Science and Technology*, 11(2). https://doi.org/10.17508/cjfst.2019.11.2.13
- Benedict, T., & Eyitayo, O. (2018). Modelling the price of Maize and its Determinants in Nigeria: Error Correction Model Approach. *Albanian j. Agric. Sci*, *17*(4), 235–242.
- Hamulczuk, M., & Stańko, S. (2014). Factors Affecting Changes in Prices and Farmers' Incomes on the Polish Pig Market. *Problems of Agricultural Economics*, *341*(4), 135–157. https://doi.org/10.5604/00441600.1151785
- Iken, J. E., & Amusa, N. A. (2004). Maize research and production in Nigeria. *African Journal of Biotechnology*, *3*(6), 302–307. https://doi.org/10.5897/AJB2004.000-2056
- Okechukwu, D., Chinecherem, E., & Raphael, J. (2020). *Economics of pineapple production in Awgu Local Government Area of Enugu State*, *Nigeria*. 8(November), 245–252. https://doi.org/10.33495/jacr
- Pinstrup-Andersen, P. (2019). Foreword. In *Transforming Agriculture in Southern Africa:*Constraints, Technologies, Policies and Processes. https://doi.org/10.1300/j144v06n01\_02
- Rajamanickam, S., Chandrakumar, M., & Rohini, A. (2022). Constrains faced by the farmers in marketing of maize in Tirupur district of Tamil Nadu. 11(6), 2338–2340.
- Santpoort, R. (2020). THE drivers of maize area expansion in sub-Saharan Africa. How policies

- to boost maize production overlook the interests of smallholder farmers. *Land*, *9*(3). https://doi.org/10.3390/land9030068
- Shiferaw, B., Prasanna, B. M., Hellin, J., & Bänziger, M. (2011). Crops that feed the world 6. Past successes and future challenges to the role played by maize in global food security. *Food Security*, *3*(3), 307–327. https://doi.org/10.1007/s12571-011-0140-5
- State, K., Muhammad, A. T., Owolabi, J. O., Odedokun, V. O., & Yusuf, L. O. (2022).

  Estimation of Factors Influencing Price of Maize Among Smallholder Farmers In Giwa

  Local Government Area Of. 9(1), 1–7.
- Tegegn, H., Senbetie, T., Abrham, S., Tagese, A., & Sisay, B. (2024). Socio-Economic
   Determinants of Smallholder Farmers' Coffee Production in Wolaita Zone, Ethiopia.
   African Journal of Food, Agriculture, Nutrition and Development, 24(6), 26798–26818.
   https://doi.org/10.18697/ajfand.131.24465
- Unsal, F., Spray, J., & Okou, C. (2022). Staple Food Prices in Sub-Saharan Africa: An Empirical Assessment. *IMF Working Papers*, 2022(135), 1. https://doi.org/10.5089/9798400216190.001
- Akpan, S. B., Udoh, E. J. (2009): Relative Price Variability and Inflation in grain subsector in Nigeria. Glo. J. of Agri Sci. 8 (2), 147-151. Alabi, R. A. and Esobhawan, A.O (2006). Relative economic
- Naylor, R. L., & Falcon, W. P. (2010). Food security in an era of economic volatility. *Population and development review*, *36*(4), 693-723..