

BUSITEMA UNIVERSITY ARAPAI CAMPUS FACULTY OF AGRICULTURE AND ANIMAL SCIENCES DEPARTMENT OF AGRIBUSINESS AND EXTENSION

VARIATIONS IN MAIZE PRICES ACROSS MARKETS CASE STUDY OF EASTERN UGANDA.

 \mathbf{BY}

MANGENI JOHN DABA.

REG. NO: BU/UP/2020/1340.

EMAIL:mjohndaba@gmail.com.

SUPERVISOR: DR: MAGUMBA DAVID.

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

MARCH 2024

DECLARATION

I declare that this research is my original work and has never been submitted to any	university	or
institution of higher learning for an academic award.		

Signature

Date 15#/3/2024

Mangeni John Daba

BU/UP/2018/1340

APPROVAL

This is to certify that this study is submitted for ex	camination with my approval as a supervisor.
Dr: David Magumba.	Date S S 20 24
Academic Supervisor	B ATALLA

DEDICATION

I dedicate this project report to my beloved parents for their authoritative parenting and for laying a strong Cornerstone of my intellectual abilities.

ACKNOWLEDGMENT

First and foremost, all thanks and praise goes to Almighty God who enabled me with life and knowledge of doing this work, secondly, I would like to express my special thanks to my parents Mr Mayende Clement Daba and miss Nakasolo Minisa for their guardianship in my life and my beloved sister Mugeni Eveline for her support towards my study.

Thirdly, I am thankful to my supervisor Dr: Magumba David who in spite of being busy with his work, is taking time to guide and support me academically in the study. His important comments and remarks are very useful to my work, without him I do not know exactly where I would be now. I owe him much. Lastly, I am also extending my thanks to my fellow class members whom we are studying and discuss with most especially kiden Vicky thank for helping me.

TABLE OF CONTENTS

Contents

DECLARATION	ii
APPROVAL	iii
DEDICATION	iv
ACKNOWLEDGMENT	v
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF ACRONYMS	xii
ABSTRACT	xiii
1.0. INTRODUCTION	1
Background to the Study	1
1.2. Statement of the Problem	3
1.3. Objective of the Study	4
1.4. This research is specifically examined	4
1.5. Research Questions	4
1.6. Significance of the Study	4
1.7. To policy makers	4
1.8. To Maize traders.	4
1.9. To Research and students	5
1.10. Justification of the study	5
1.11. Limitations of the study	5
1.12. Scope of the Study	6
CHAPTER TWO	7
I ITED ATLIDE DEVIEW	7

2.1. Introduction	7
2.2. Theoretical Framework	7
2.3. Annual Quantity of maize Produced and Maize Prices in selected districts of easter	ern Uganda
	7
2.4. Capacity to bargain and maize price in the selected districts of eastern Uganda	8
2.5. The intermediaries and maize price in the selected districts of eastern Uganda	8
2.7. The Law of Supply and Demand	9
2.8. Exchange Rate and Maize Prices in the selected districts in eastern Uganda	9
2.9. Land under maize production in eastern Uganda.	10
2.10. Seasonality and maize price in the selected districts of eastern Uganda	10
2.11. Quality of maize and maize price in the selected districts of eastern Uganda	10
2.12. Maize Export Quantity and Maize Prices	11
2.13. The Gap left in the literature.	11
2.14. Conceptual Framework	12
CHAPTER THREE.	13
3.1. RESEARCH METHODOLOGY	13
3.2. Introduction	13
3.3. Description of the study area	13
3.4. Study population	14
3.5. THE PROPORTIONS FORM ULA	14
3.6. Unlimited population	14
3.7. Finite population	14
3.8. Sample size per district.	15
3.9. Research Design.	16
3.10. Study methods	16

3.11. Study tools	16
3.12. Sampling design	17
3.13. Sampling Techniques	17
3.14. Data Collection	17
3.15. Data analysis	17
3.16. Ethical Considerations	18
CHAPTER FOUR	19
4.0. PRESENTATION AND DISCUTION OF RESULTS	19
4.1. Introduction	19
4.2. Background of the traders	19
4.3.Gender.	21
4.4.Level of education	21
4.5.Years of work experience	21
4.6.Market place	22
4.7.Age	22
4.8.Tones handled	22
4.9.OBJECTIVE I	24
4.10.To analyze the effect of maize quality on price.	24
4.11.Correlation between price and maize quality	24
4.12.OBECTIVE II	25
4.13.Comparing mean prices of maize across markets	25
4.14. OBJECTIVE III	28
4.15. The effect of maize brokers on price of maize	28
4.16. Correlation between price and influence of brokers to price	28
CHAPTER FIVE	30

5. CONCLUSION AND RECOMMENDATIONS.	30
5.0. Introduction	30
5.1. Conclusions	30
5.2. Recommendations	30
5.3. Policy Recommendation	30
5.4. Practical Recommendations	30
5.5. Suggestions for Further Research	31
REFERENCES	32
APPENDICES	35
7.1. APPENDIX 1: RESEARCH QUESTIONS	35
7.2. APPENDIX II	38
7.3. A map of the study area.	38

LIST OF TABLES

Table 1 Number of traders sampled per market	15
Table 2 Bio data for maize traders	19
Table 3 Descriptive statistics for market sales data accross various districts	24
Table 4 Correlation between maize quality and price	24
Table 5 Comparison of mean prices of maize across markets	25
Table 6 Correlation between use of brokers and price	28

LIST OF FIGURES

Figure 1 Map of the study area	13
Figure 2 Mean price for each quarter per market	23

LIST OF ACRONYMS

BUAC Busitema University, Arapai Campus

D F Degree of Freedom

FAO Food and Agriculture Organization of the United Nations

H A highest number of land acreages

K I Key Informants

N Number

SPSS Statistical Package for Social Science

UBOS Uganda Bureau of statistics

ABSTRACT

The maize crop, (zea mays ssp) belongs to the tribe maydae, family poaceae and was originated in Mexico and Central America around 1000 years ago. This crop was introduced in Uganda in 1861 and has since become a major part of the farming system, ranking third in importance among the main cereal crops (finger millet, sorghum and maize) grown in the country. The increasing variations in prices of maize can lead to inefficient agricultural production and definitely have detrimental effects on the economic, social, and political growth of any country. Most studies on maize in Uganda are focused on the increasing maize yields or production, very few addresses the determinants of maize price change as a panacea for the increase of productivity. Filling this gap requires a study on the various factors that contribute to the variations in the price of maize. In this study, primary data were used and this was gathered from the districts of Busia, Namayingo, Bugiri, Mayuge and Iganga in eastern Uganda from 253 maize traders. Primary data was collected through a structured questionnaire. Data analysis was done in SPSS version 20. The study used descriptive statistics tools to analyze the causes of price variations in Uganda. In addition, various factors affecting price variation of maize were examined. The results were presented in tables. The correlation tests showed that maize quality and maize brokers had a positive and significant correlation with maize prices. The mean price of maize for the year 2023 was 1161.5198, which was a minimal variation on prices across markets. It was recommended that the positive and significant relationship of brokers to maize price change should serve as an impulse to encourage traders across the country to stop using maize brokers as they have a fluctuating influence on the maize pricing. In addition, the maize traders should also improve on the quality of the maize they sale as this can help in increasing on the prices to foster the competitiveness of their crop both locally and internationally.

CHAPTER ONE

1.0. INTRODUCTION

This chapter comprised of a brief preview of the research factors that was seen. It contains the study background, the problem statement, the research objectives and questions, scope and concludes with the significance of the study to the concerned people.

Background to the Study

The maize crop, (zea mays ssp) belongs to the tribe maydae, family poaceae and was originated in Mexico and Central America around 1000 years ago and more than 32,000 genes (Thomas et al., 2016) of maize are grows well in various areas and its unparalleled to any other crop due to its ability to adapt in diverse environment.

This crop was introduced in Uganda in 1861 and has since become a major part of the farming system, ranking third in importance among the main cereal crops (finger millet, sorghum and maize) grown in the country (Arulandoo et al., 2019). Maize crop is of economic importance to Uganda and other tropical countries. Much of maize production in Uganda aims at supply export markets in the area such as Kenya and recently South Sudan, who are in much need and here maize specifications are used to regulate the quality of maize on the international market (Houeninvo et al., 2020). The maize sector is said to provide a livelihood for about 3 million Ugandan households (Sayed & Auret, 2023), close to 1000 traders and over 20 exports (Arulandoo et al., 2019). That is to say, maize is a growing source of income to households and foreign earner through the export of maize

In fact, maize price is becoming a major issue all over the world in countries growing maize, most especially in developing countries and a number of studies are being concentrated on the causes and solutions to these reported skyrocketing maize and other food prices (Ayinade et al., 2019). In both developing and developed-countries, governments are playing important roles in bringing prices under control and in helping poor people cope up with increasing food prices fluctuations. The combination of new and ongoing forces is driving the world food situation and, in turn, the prices of maize and other food staffs. Some of the emerging factors behind the rise and fall of maize prices is the high price of fuel, intermediaries (FAO, 2014). The growing world population

REFERENCES

- Abokyi, E., Strijker, D., Asiedu, K. F., & Daams, M. N. (2020). The impact of output price support on smallholder farmers' income: evidence from maize farmers in Ghana. *Heliyon*, 6(9). https://doi.org/10.1016/j.heliyon.2020.e05013
- Alhogbi, B. G., Arbogast, M., Labrecque, M. F., Pulcini, E., Santos, M., Gurgel, H., Laques, A., Silveira, B. D., De Siqueira, R. V., Simenel, R., Michon, G., Auclair, L., Thomas, Y. Y., Romagny, B., Guyon, M., Sante, E. T., Merle, I., Duault-Atlani, L., Anthropologie, U. N. E., ... Du, Q. (2018). No 主観的健康感を中心とした在宅高齢者における健康関連指標に関する共分散構造分析Title. *Gender and Development*, 120(1), 0–22. http://www.uib.no/sites/w3.uib.no/files/attachments/1._ahmed-affective_economies_0.pdf%0Ahttp://www.laviedesidees.fr/Vers-une-anthropologie-critique.html%0Ahttp://www.cairn.info.lama.univ-amu.fr/resume.php?ID_ARTICLE=CEA_202_0563%5Cnhttp://www.cairn.info.lama
- Arulandoo, X., Sritharan, K., Subramaniam, M., Ngeleza, G. K., Owusua, R., Jimah, K., Kolavalli, S., باقری, ج., Rodrigues, G. S., Martins, C. R., de Barros, I., Sims, B., Kienzle, J., Dubey, A. P., Pattnaik, S. M., Banerjee, A., Sarkar, R., Kumar, S. R., ... Perera, L. (2019). Out Line Out Line. *Agricultural Systems*.
- 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), 237–234. https://doi.org/10.17508/cjfst.2019.11.2.13
- Basera, J. (2016a). AN ASSESSMENT OF SMALLHOLDER MAIZE PRODUCTIVITY AND AN ASSESSMENT OF SMALLHOLDER MAIZE PRODUCTIVITY AND PROFITABILITY IN ZIMBABWE: A CASE OF MAZOWE DISTRICT. September 2015. https://doi.org/10.13140/RG.2.1.2192.6647
- Basera, J. (2016b). An Assessment of Smallholder Maize Productivity and Profitability in Zimbabwe: A Case of Mazowe District. August, 76. https://doi.org/10.13140/RG.2.1.2192.6647
- FAO. (2014). Analysis of price incentives for maize in Uganda. *Technical Notes Series*, *April*, 40. www.fao.org/publications

- FAO (Food and Agricultural orginization). (2015). The economic lives of smallholder farmers. *FAO, Food And Agriculture Organization of the United Nations*.
- Food, M. A., Policies, A., & Fao, M. (2012). ANALYSIS OF INCENTIVES AND DISINCENTIVES FOR MAIZE IN UGANDA DECEMBER 2012. December.
- Guo, J., & Tanaka, T. (2020). Examining the determinants of global and local price passthrough in cereal markets: evidence from DCC-GJR-GARCH and panel analyses. *Agricultural and Food Economics*, 8(1), 1–22. https://doi.org/10.1186/s40100-020-00173-1
- Haile, K., Gebre, E., & Workye, A. (2022). Determinants of market participation among smallholder farmers in Southwest Ethiopia: double-hurdle model approach. *Agriculture and Food Security*, 11(1), 1–13. https://doi.org/10.1186/s40066-022-00358-5
- Houeninvo, G. H., Venant, C., & Quenum, C. (2020). *Impact of improved maize variety adoption on smallholder farmers' welfare in Benin*. https://doi.org/10.1080/10438599.2019.1669331
- Kucukcolak, N. I., & Sopacı, C. (2023). Factors Affecting Food Price Stability: Evidence from Turkey. Lecture Notes in Networks and Systems. https://doi.org/10.1007/978-3-031-08084-5_59
- Le Cotty, T., Maître D'Hôtel, E., Ndiaye, M., & Thoyer, S. (2021). Input use and output price risks: the case of maize in Burkina Faso. *Working Paper MoISA*, 28p. https://hal.inrae.fr/hal-03252026
- Lestari, W. (2019). Pengaruh Pelayanan Promosi dab Syariah Terhadap Minat Nasabah Dalam Memilih Asuransi Syariah (Studi pada PT.Asuransi Takaful Keluarga Cabang Palembang). Journal of Chemical Information and Modeling.
- Profile, S. E. E. (2018). *The scientific background of competitive maize production. September*. https://doi.org/10.34101/actaagrar/150/1700
- Sattar, A. Al, Mahmud, R., Mohsin, M. A. S., Chisty, N. N., Uddin, M. H., Irin, N., Barnett, T., Fournie, G., Houghton, E., & Hoque, M. A. (2021). COVID-19 Impact on Poultry Production and Distribution Networks in Bangladesh. *Frontiers in Sustainable Food Systems*, 5(August), 1–12. https://doi.org/10.3389/fsufs.2021.714649

- Sayed, A., & Auret, C. (2023). Speculative ratios and returns volatility in the South African white maize futures market Speculative ratios and returns volatility in the South African white maize futures market. *Cogent Economics & Finance*, 11(1). https://doi.org/10.1080/23322039.2022.2160127
- Theses, E., & Citation, R. (2021). Analysis of the determinants of domestic maize prices in Kenya.
- Thomas, E., Ramirez, M., Zonneveld, M. van, Etten, J. van, Alcázar, C., Beltrán, M., Libreros, D., Pinzón, S., Solano, W., & Galluzzi, G. (2016). Assessment of the conservation status of Mesoamerican crop species and their wild relatives in light of climate change. In *Enhancing crop genepool use: capturing wild relative and landrace diversity for crop improvement*. https://doi.org/10.1079/9781780646138.0248
- Utnik-Banas, K. (2019). The fluctuations of maize price in years 2010-2018 in Poland. 20th

 International Scientific Conference "Economic Science for Rural Development 2019". New

 Dimensions in the Development of Society. Home Economics. Finance and Taxes.

 Bioeconomy., 52(52), 396–402. https://doi.org/10.22616/esrd.2019.147
- Wakabi, P. (2016). Maize Training Manual for Extension workers in Uganda Partners. *Maize Training Manual for Extension Workers in Uganda Partners*, 59.