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THE POTENTIAL OF GROUNDNUT VALUE ADDITION ON INCREASING HOUSE HOLD INCOMES IN KUMI DISTRICT

A CASE STUDY OF KUMI SUB-COUTY

BY

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A RESEARCH DISSERTATION SUBMITTED TO THE FACULTY OF
AGRICULTURE AND ANIMAL SCIENCE IN PARTIAL FULFILLMENT
FOR THE REQUIREMENTS OF THE AWARD OF BACHERLOR OF
AGRIBUSINESS MANAGEMENT DEGREE OF BUSITEMA
UNIVERSITY

FEBUARY, 2021

DECLARATION

I Akia Irene Phiona hereby declare that this dissertation is my original work and has never been submitted to any institution of learning for any award of academic qualification.

Signature Date 16th Feb 12021

AKIA IRENE PHIONA

APPROVAL

This dissertation has been submitted for examination with my approval as the candidate's University Supervisor.

Signed

Date 16th Feb | 2021

MR. EGABU JOSEPH

DEDICATION

To my beloved Dad, Mr. Ilukor Alex, my siblings and all members of St John's church Entebbe for the encouragement, inspiration, provision and motivation throughout my academic journey.

ACKNOWLEDGEMENT

Glory to the almighty God for enabling me to go through this study process successfully with His knowledge, wisdom and guidance.

1 take this opportunity to thank my university supervisor, Mr. Egabu Joseph for being patient with me and advocating his time to guide me throughout the research process.

I also thank the Head of Agribusiness Department Madam Asero Diana and the entire agribusiness department for the guidance, knowledge and care that was given us to ensure that the study is completed.

Finally, my special thanks go to my dad Mr. Ilukor Alex and sister Miss. Asio Norah for the love, care, financial support, encouragement, moral and parental advice they always gave to me to successfully complete this task.

LIST OF ABBREVIATIONS AND ACRONAMES

GMA.....Gross Margin Analysis

NaSRRI National Semi-Arid Resources Research institute

NDP National Development Plan

Ush Uganda Shillings

SPSS Statistical Package for Social Scientists

NGOs Non-Government Organizations

MT Metric Tonnes

Kg Kilograms

VC Value Chain

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ABSTRACT

Although it has been established that the Government of Uganda is currently advocating for value addition of various products in different parts of the country to increase household incomes through establishing policies, programs and projects to support farmers, little has been seen towards the implementation of these ideas. This study sought to understand the groundnut value chain in Kumi district focusing on the key production practices, costs in groundnut production, value addition activities their status as well as the effect they have on household incomes and lastly finding out the challenges faced by chain actors along the groundnut value chain. The study was done using a cross sectional survey design which allows examination of multiple factors achieving multiple outcomes in one single study. A multi-stage sampling procedure and probability random sampling technique was used to select representatives which enabled me to get a representative from each study population in every parish, village and household that was selected. The sample size was then determined using the solvin's formula used to calculate an appropriate sample size from a given population. The results of the study showed that the actors in the groundnut chain in Kumi district mainly deal in production of red beauty and Serenut groundnut varieties which are processed to get shelled groundnuts, roasted kennels and peanut butter mainly sold at the local trading center or the district town which leaves a lot of other forms of groundnut activities and far markets unexploited in the district. Modern packaging and branding is barely seen in the sub county except for a few products found in the district towns which are from other districts like Mbale and Kampala and groundnut production still remains a profitable business in the district. The study also discovered that the major challenge hindering farmers and traders from adding value is inadequate capital and the actors being comfortable at the stage of value chain they are at The study recommends sensitization of farmers on value addition to enable farmers get the deserved benefit from groundnut production. The local government should also support farmers to form groups to enable them acquire machinery, request for value addition trainings and knowledge and increase their bargaining power in commanding higher prices for products and low prices for inputs. NGOs and the Government should constantly provide market information to farmers to strengthen the bargaining power of farmers and help them make the right decisions when it comes to selling their products.

CHAPTER ONE

1.1 Introduction

Groundnuts also known as peanut, are an important legume oilseed and food crop grown by both small holder farmers and commercial farmers all over the world (Okello *et al.* 2010). In many developing countries, groundnuts are the principal source of digestible protein (25 - 34%), cooking oil (44 - 56%), and vitamins (Jelliffe *et al.* 2018). Groundnut are an important nutritional supplement to mainly cereal diets of maize, millet and sorghum to many Ugandans (Kefa n.d) and are said to be a food security crop as well as a source of income to rural households in in sub-Saharan Africa (Laing *et al.* 2018.)

In the 2014/15season, world was estimated to produce nearly 27 million tonnes (shelled basis) of groundnuts in the which represents 5% of the global output of the 10 major oilseeds(Edible nuts - groundnuts, 2015). China ranked first in groundnut production with 13,936,443 metric tonnes (MT) followed by India with 6,869,829MT and Nigeria with 3,280,514MT among others (Pazderka et al,2010). In East Africa, Tanzania produced 5% of global production of groundnut in 2015 (Laing et al, 2018) while Kenya and Uganda produced 28,574 tonnes and 210,000 tonnes of un shelled groundnuts respectively in the same period (FAOSTAT data 3-3-2020 (l)).

In Uganda, groundnuts is second most important grain legume for Uganda with a cultivated area estimate at nearly 260,000 ha (Abate and Vision) and continues to be a major crop which ranked the 11th in production and 6th for area harvested in 2013 and 2014. In the period 2016-2018, Uganda produced 210,000; 216,828 and 242,243 metric tonnes of unshelled groundnuts respectively (FAOSTAT_data_3-3-2020 (1)). The crop is a valuable crop that is primarily sold domestically and given its moderate yield, it is highly profitable compared to other staple crops like finger millet and sorghum (Jelliffe et al,2018). The market for its products is readily available and reliable especially in the rapidly growing towns of Uganda where they are used in manufacturing and production of fast foods (Africa,2005).

REFERENCES

- Abate, Tsedeke, and Homegrown Vision. "Bulletin of Tropical Legumes." *Grain Legumes of Uganda*, no. June, 2020.
- Africa, In Potatoes and Groundnuts in Eastern Uganda A Consultancy Report to AT Uganda. no. May, 2005, pp. 81–128.
- Anderson, David P., and Charles R. Hall. Adding Value to Agricultural Products.
- Anderson, David P., and Daniel Hanselka. Adding Value to Agricultural Products, 2009, pp. 1-4.
- Authority, National Planning. Third National Development Plan (Napiti) 2020/21 2024/25. no. January, 2020.
- Bwala, Madu Ali, and Aniobi U. John. Profitability Analysis of Paddy Production: A Case of Agricultural Zone 1, Niger State Nigeria. no. 1, 2018, pp. 88–92, doi:10.3329/jbau.v16i1.36486.
- Census., National population and housing. Area Specific Profiles Kumi District, no. April, 2017.
- Chauvet, Guillaume. Coupling Methods for Multistage Sampling. no. December 2015, 2017, doi:10.1214/15-AQS1348.
- Dalipagic, I., and G. Elepu. "Agricultural Value Chain Analysis in Northern Uganda: Maize, Rice, Groundnut, Siunflower and Sesame." *ACF-International*, no. March, 2014, pp. 1–74.
- Devi, Irugu Shakuntala, et al. Value Chain of Groundnut-An Analysis of Constraints and Opportunities Ahead. no. April 2018, 2017, doi:10.5958/2322-0430.2017.00093.2.
- EDIBLE NUTS GROUNDNUTS, no. June, 2015.
- FAOSTAT data 3-3-2020 (1).
- Friis-hansen, Esbern. Agricultural Development among Poor Farmers in Soroti District,

 Uganda: Impact Assessment of Agricultural Technology, Farmer Empowerment and

 Changes in Opportunity Structures. 2005, pp. 1–25.

- Garnett, Leah, et al. Rice Growing Guide, no. November, 2018.
- Gross Margin Training Notes, no. July, 2017.
- Jackline, Bonabana Wabbi, et al. "Smallholder Farmers Access to Improved Groundnut Production and Value Addition Technologies in Eastern Uganda." *Journal of Agricultural Extension and Rural Development*, vol. 7, no. 8, 2015, pp. 247–56, doi:10.5897/jaerd2014.0664.
- Jelliffe, Jeremy L., et al. Adoption of High-Yielding Groundnut Varieties: The Sustainability of a Farmer-Led Multiplication-Dissemination Program in Eastern Uganda. 2018, doi:10.3390/su10051597.
- Kalule, David Okello, et al. Overview of Groundnuts Research in Uganda: Past, Present and Future. no. April 2014, 2010, doi:10.5897/AJB09.013.
- Kefa, Oloka Herbert. Groundmut Production Guide for Uganda: GROUNDNUT PRODUCTION
 GUIDE FOR UGANDA: Recommended Practices for Farmers.
- Laing, Mark D., et al. Groundmut Production Constraints, Farming Systems, and Farmer-Preferred Traits in Tanzania, no. October, 2018, doi:10.1080/15427528.2018.1531801.
- Mogee, John. Chosen Strategy of the Firm. These Categories Can Be Described as Follows: •. 2010.
- Morse, Janice M., et al. Verification Strategies for Establishing Reliability and Validity in Qualitative Research. 2002, pp. 13–22, doi:10.1177/160940690200100202.
- Okello, D. K., et al. "Overview of Groundnuts Research in Uganda: Past, Present and Future." African Journal of Biotechnology, vol. 9, no. 39, 2010, pp. 6448–59, doi:10.5897/AJB09.013.
- Pazderka, Catherine, et al. Chatham House Procurement for Development Forum: Groundnuts Case Study. 2010.
- Roy, Pinaki. Value Chain Management of Agricultural Goods: Present Scenario and Future
 Prospects Value Chain Management of Agricultural Goods: Present Scenario and Future

Prospects. no. January, 2019.

Scheffer, Markus, and K. Markus. The Genesis, Development and Impact of Cattle Rustling in Teso Subregion, a Case Study of Katakwi District. no. June, 2016, pp. 3345–56.

Sedgwick, Philip. Multistage Sampling. no. July, 2015, pp. 30-32, doi:10.1136/bmj.h4155.

Setia, Maninder Singh. Methodology Series Module 3: Cross-Sectional Studies Methodology Series Module 3: Cross-Sectional Studies. no. May 2016, 2018, doi:10.4103/0019-5154.182410.

Statistics, O. F. VOLUME IV: 2010.

TESO. no. June, 2014.

Uganda investment authority. TESO INVESTMENT PROFFIE 201, 2016, pp. 1-28.

Value Activities,