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FACULTY OF AGRICULTURE AND ANIMAL SCIENCES

DEPARTMENT OF AGRIBUSINESS AND EXTENSION

**THE SOCIO-ECONOMIC FACTORS AFFECTING BEAN PRODUCTIVITY AMONG  
SMALLHOLDER FARMERS IN ITIRIKWA SUB COUNTY, ADJUMANI DISTRICT.**

**BY**

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**A SPECIAL PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF  
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REQUIREMENTS FOR THE AWARD OF BACHELORS DEGREE OF  
AGRIBUSINESS OF BUSITEMA UNIVERSITY**

**MARCH, 2024**

**DECLARATION.**

This study is original and has not been published for any other degree award to any other university before

Signature.......... Date.....19/03/2024.....

VUCHIRI THOMAS

**APPROVAL**

This Special Project Report has been submitted to the department of Agribusiness and extension with approval of the University Supervisor.

Signature [Handwritten Signature] Date 19/3/2024

## **DEDICATION**

I dedicate this work to my mother Yaiyo Sunday and my family members for their tireless support and my friend Mander Priska.

Special thanks should go to my supervisor Mr. Daari Noah and my lecturers Mr. Appeli Saidi, Mr Ochom Geoffrey.

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## LIST OF ACRONYMS

ANOVA.....	Analysis of Variance
FAAS.....	Faculty of Agriculture and Animal Sciences
FAO.....	Food and Agriculture Organization
FC.....	Fixed Costs
MAAIF.....	Ministry of Agriculture, Animal Industry and Fishery
NGO.....	Non-Governmental Organization
NPK.....	Nitrogen, Phosphorus, Potassium
NURI.....	Northern Resilience Initiative
PRELNOR.....	Project for Restoration of Livelihood in Northern Region
REF.....	References
SPSS.....	Statistical Packages for Social Sciences
TCP.....	Total Cost of Production
TR.....	Total Revenue
TVC.....	Total Variable Cost
WHO.....	World Health Organization

## **ABSTRACT**

Bean is an important source of proteins and income for poor resource households. However the yield of beans has remained very low in comparison to yields obtained under ideal management conditions. This necessitated the examination of socio-economic factors influencing bean yields among smallholder farmers in Itirikwa sub-county, Adjumani district northern Uganda. A total of 80 farmers were randomly selected from the study area and the data was subjected to descriptive statistics and regression analysis using IBM SPSS (version 20). The descriptive study revealed that majority of the respondents (82.7%) were practicing farming and had no other off farm jobs, most of them were 31-40 years of age (31%). Also, 82.5% and 53.8% of the respondents had bean gardens ranging from 1 to 2 acres and sourced seeds for planting from local market respectively. While 65.0% of the farmers didn't have access to credit, 90.7% actually had access to market information. From the study, majority of the farmers (20.4%) attained yields of either 70 - 137kgs or above 200kgs per acre. The results further show that bean production per acre could cost about 525,000/=, total revenue was 616,500/= and the profit was 915,000/= per acre on average, the price for beans on average was found to be 4500/= per kilogram sale showing a positive margin at 22.9%. The results indicated in regression analysis of bean yield and several socio-economic factors stood out. Notably, age shows a positive statistically significant relationship with the variation in bean yield, Education level, Family size and fertilizer usage and farming experience shows negative coefficients but statistically significant in influencing the variations in the bean yield, whereas gender and land ownership are statistically not significant.. It is therefore recommended that the government's effort to support agricultural mechanization for increased acreage and productivity be strengthened through private public partnership to quickly reach the smallholder farmers.

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background of the study.

Globally, bean (*Phaseolus vulgaris*) is the world's most important food legume for direct human consumption. In 2021, global production of bean was estimated at more than 27 million tons on more than 34 million ha, feeding more than 300 million people linked to the global agricultural economy (Erenstein et al., 2022). Average per capita consumption of bean in the main bean production areas is higher in Africa, estimated at 31.4kg/year per household. High in nutrients and commercial potential, bean holds great promise for fighting hunger, increasing income and improving soil fertility in Sub Saharan Africa. The crop occupies more than 3.5 million hectares in sub-Saharan, accounting for about 25% of the global production but production is concentrated in the densely populated areas of East Africa, the lakes region and the highlands of southern Africa (Kuyah et al., 2021). In Africa, bean is a popular crop among small-scale farmers, given its short growth cycle (about 70 days) which permits production when rainfall is erratic. Bean is often grown by women farmers mainly for subsistence and markets (Gaspard et al., 2021). Despite the great importance, the growth in bean productivity has been slow as a result of both social and physical environments in which the crop is grown. In Eastern and Southern Africa, bean is a cultivated largely by women in an agronomic setting characterized by marginal environments and low external inputs where stresses maintain productivity at less than 25% of potential yield. Abiotic stresses such as drought and soil fertility constraints are widespread, often severe in some countries in Africa (Katungi et al., 2010). (FAO) defines smallholder farmers as those working on land plots smaller than 2 hectares. Many are poor and food insecure and have limited access to markets and services. Their choices are constrained, but they farm their land and produce food for a substantial proportion of the world's population. Besides farming they have multiple economic activities, often in the informal economy, to contribute towards their small incomes (Sabo et al., 2017).

In Uganda, the varieties of beans that are grown in the country include NABE 12, NABE 4, the common Nambale, NABE 15 to 2 and Narobean 1, 2 and 3 and all these can be grown in central, Northern and eastern Uganda (Tugume et al., 2020). Climbing beans are mainly grown in the western part of the country and along the slopes of the Elgon Mountain and these are Nabe 12c,

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