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UNIVERSITY**
Pursuing Excellence

**FACULTY OF AGRICULTURE AND ANIMAL
SCIENCES**

DEPARTMENT OF ANIMAL PRODUCTION AND MANAGEMENT

FINAL YEAR PROJECT REPORT

**FACTORS AFFECTING THE ADOPTION OF CAGE FISH
FARMING IN KALANGALA TOWN COUNCIL, KALANGALA
DISTRICT.**

By

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DECLARATION

I, KAJJABWANGU JOSEPH, hereby affirm that this work is entirely my own and has not been previously submitted to this university or any other higher institution of learning for the purpose of obtaining a bachelor's degree.

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APPROVAL

This research dissertation thesis is submitted by approval of my supervisor.

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List of abbreviations

FAO	Food and Agriculture Organization
OWC	operation wealth creation
UBOS	Uganda Bureau of Statistics
NAADS	National Agricultural Advisory Services.
SPSS	statistical Package of Social Science

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ABSTRACT

The adoption of cage fish farming in Kalangala Town Council, Kalangala District, presents a significant opportunity to enhance local livelihoods, combat food insecurity, and contribute to economic development. Despite favorable ecological conditions and government initiatives to promote this aquaculture practice, adoption rates remain low. This study sought to identify the key factors influencing the decision to adopt cage fish farming in Kalangala Town Council. A cross-sectional survey design was employed, gathering data from 80 respondents through structured questionnaires, which were analyzed using descriptive statistics and linear regression.

The results indicated that economic factors, notably high initial investment costs ($p = 0.045$) and average monthly income ($p = 0.001$), were pivotal in shaping adoption decisions. Social factors, such as community acceptance and access to training and support programs, while important, were not statistically significant ($p > 0.05$). Environmental factors, particularly access to clean water and suitable feeds, were marginally significant ($p = 0.060$) in influencing adoption. Key challenges identified included access to markets and quality inputs (36.3%) and financial constraints due to high investment costs (35%). Despite these obstacles, opportunities such as increased income and employment (57.5%) and the growing demand for fish with export potential (26.3%) were noted.

CHAPTER ONE

1.0 BACK GROUND

1.1 Introduction.

Aquaculture, the cultivation of aquatic organisms in controlled or semi-controlled environments, has emerged as one of the world's fastest-growing sectors in food production. (Stickney & Gatlin III, 2022) .It is increasingly viewed as a sustainable solution to the rising global demand for seafood, driven by the decline in natural fish stocks due to overfishing, environmental degradation, and climate change. By 2030, aquaculture is projected to contribute approximately 62% of global fish production, up from 46% in 2018 (Ahmad et al., 2021)). This rapid expansion is fueled by population growth, rising income levels, and increased awareness of the health benefits of fish consumption.

With the global population projected to exceed 9 billion by 2050, the need for sufficient food, particularly protein sources, has intensified. Aquaculture has emerged as a vital sector in ensuring global food security, providing high-quality protein and essential micronutrients (Fao, 2018). Fish and other aquatic organisms play a vital role in diets, particularly in developing countries. The Food and Agriculture Organization (FAO) reports that over 3 billion people depend on fish as their main source of animal protein, highlighting the critical need for sustainable fish farming to help avert food shortages.

Aquaculture is not only essential for food security but also plays a significant role in rural development and economic growth, particularly in regions with limited traditional farming options. However, the decline of capture fisheries from natural water bodies and low productivity in pond-based fish farming has driven the development of new systems like cage culture to address supply shortages amid increasing demand (Namaemba et al., 2022). Cage culture systems, which utilize existing water resources to enclose fish in cages while allowing water exchange and waste removal (Soltan, 2016), have expanded rapidly and are expected to boost efficiency (Njiru et al., 2019).

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