

**DETERMINANTS OF FINANCIAL BEHAVIOR AMONG HOUSEHOLDS IN
UGANDA: AN EMPIRICAL ANALYSIS OF PARISH DEVELOPMENT MODEL
EXPOSURE**

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**UGANDA CHRISTIAN
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DECLARATION

I hereby declare that this research report is a work of my own and it has not been submitted in part or in whole for any academic award in any University or Institution of Higher Learning. All materials, ideas or quotations from other sources have been identified and referenced appropriately according to academic practice.

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APPROVAL

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DEDICATION

This research is dedicated to my parents and relatives who have constantly supported me and encouraged me throughout my studies. This work is also dedicated to the households of Uganda who generously shared their experience, which laid the basis for this analysis. I also extend my special gratitude to my supervisor for her unwavering supervision and to the whole Uganda Christian University for equipping me with the resources needed to accomplish this milestone.

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ABSTRACT

In the study, the determinants of financial behavior of households in Uganda were explored, especially the impact of exposure to the Parish Development Model (PDM). This study used a quantitative research design and analysed survey data from 1576 households to explore how PDM exposure, access to credit and their savings status interacted with household headship. The empirical analysis was based on linear regression models to measure the effect of such factors on financial outcomes. The findings showed that sub regional classification and male headship status were statistically significant predictors for all models. The overall explanatory power, however, was still quite low, indicating the presence of other latent socioeconomic factors. All the variables were tested for multicollinearity as part of the diagnostic testing, which showed no multicollinearity, ensuring the robustness of the estimates.

The study found that exposure to PDM had a statistically significant effect on participation in household financial decision making, which was used to inform policy adjustments, and provide empirical evidence to support the policy changes, that would enhance financial inclusion and economic outcomes of rural households in Uganda.

This will be achieved by using a set of keywords: Financial behavior, Parish Development Model, household saving, credit access, Uganda, financial inclusion.

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LIST OF ABBREVIATIONS

AIC – Akaike information criterion

BIC – Bayesian information criterion

MoFPED – Ministry of Finance Planning and Economic Development

NAADS – National Agricultural Advisory Services

OECD – Organisation for Economic Co-operation and Development

OLS – Ordinary Least Squares

PDM – Parish Development Model

SACCO – Savings and Credit Cooperative Organization

UBOS – Uganda Bureau of Statistics

UgNHS – Uganda National Household Survey

UWEP – Uganda Women Entrepreneurship Program

VIF – Variance Inflation Factor

YLP – Youth Livelihood Program

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The way people save and borrow, budget and invest, impacts significantly on the welfare outcomes and their resulting actions in the world. A review of empirical evidence globally shows that households who manage their finances well are more resilient to income shocks, have better asset-building potential, and are more likely to be able to maintain their consumption stability over time (World Bank, 2022). In developing economies, however, financial behaviour is continually constrained, due to low financial literacy, irregular income and limited access to formal financial services. All these contribute to reducing the ability of households to plan, save and invest appropriately.

In Sub Saharan Africa, structural factors like the high level of economic informality, credit market imperfections, and pervasive poverty also influence financial behaviour in households.

Informal financial arrangements, such as village saving groups, moneylenders and rotating savings plans, are available but provide limited potential for long-term financial development for many households (Finmark Trust, 2021). Regional studies reveal that saving habits are not consistent, consumption loans are widely used and productive assets are not invested much, pointing to economic and institutional factors that limit the efforts to minimise vulnerability and promote inclusive economic development.

The regional patterns are reflected in the financial behavior of households in Uganda. The Uganda Bureau of Statistics' (2024) data show that households still face financial insecurity, with low savings rates, poor budget planning and dependence on cash loans.

The data used for this analysis (pov_2024.dta) shows some household expenditure differences, differences in welfare categories, and differences in poverty status, and would indicate financial decision making differences between income groups. The relevance of those trends is highlighted by government's efforts in financial inclusion and financial behaviour of households through the Parish Development Model (PDM). An examination of household financial behaviour in this context is essential to understanding the interactions between these programmes

and other financial behaviour, as well as whether they increase the chances of better financial outcomes for Ugandan households.

1.2 Statement of the Problem

Households will be held accountable for their financial practices such as consistent savings, judicious borrowing, and proper budgeting and repayment of loans and credit.

These practices make communities more resilient, provide income streams, and help boost welfare. The Global evidence is that positive financial behaviour reduces poverty, and increases economic participation of households (World Bank, 2022). Despite this, financial attitudes in developing nations continue to be weak, as a lack of financial education, irregular earnings and restricted access to low-cost credit remain significant issues (OECD, 2021). This discrepancy between the expectations and the actual patterns forces for the context specific investigation of determinants of household financial behavior.

Although there are regional initiatives in Africa to increase the financing of communities and the funding of livelihood promotion initiatives by the government, empirical evidence shows that financial mismanagement, low saving culture and high vulnerability to financial shocks persist among households (African Development Bank, 2021).

Programs have the potential to change the way households approach finances, but there is little evidence as to the effect of exposure to certain programs, like Uganda's Parish Development Model (PDM), on financial behavior. Previous research on financial inclusion, credit access, or poverty reduction has tended to be conducted on a regional level and has not been specific about how targeted government livelihood programmes effect household financial decision making in the day-to-day.

The national PDM was implemented in Uganda to boost the development of household enterprises and enhance financial decision making by low income households. However, there is little empirical evidence on whether PDM exposure (e.g. training, group membership, access to revolving fund, program monitoring) has led to observable changes in financial behaviour.

The government monitoring reports show issues relating to financial literacy, diversion of funds, and low repayment rates in PDM Savings and Credit Cooperative Organizations (SACCOs)

(MoFPED, 2023), which may have created a mismatch between the programs and household financial practices. This lack of knowledge about the effect of PDM on financial behaviors is a critical lack that this study aimed to fill.

1.3 Purpose of the Study

This study aims to investigate how exposure to the Parish Development Model (PDM) impacts financial behavior among households in Uganda using secondary data from the Uganda National Household Survey database (UgNHS) for 2023/24.

The aim of this study is to define the specific objectives.

The specific objectives of this study are to:

- i. To evaluate how households in Uganda react to PDM exposure to saving behavior.
- ii. To explore the effects of PDM exposure on household borrowing and debt management.
- iii. To investigate how much is the impact of PDM exposure on the budgeting and investment decisions of a household?

1.5 Research Questions

The study was guided by the following research questions:

- i. What is the impact of PDM exposure on saving of Ugandan households?
- ii. How does PDM affect the borrowing behavior and debt management of households?
- iii. How does the exposure to PDM impact household budgeting and investment?

1.6 Hypotheses

In this study the following hypotheses were tested:

H_1 : PDM exposure has a significant positive effect on the saving behavior of households in Uganda.

H_1 : Exposure to PDM significantly affects the household borrowing and debt management practices.

H₂: The effect of exposure to PDM on household budgeting and investment decisions is significant.

1.7 Scope of the Study

1.7.1 Geographical Scope

This study is based on Ugandan households and evidence is derived from nationally representative data from the Uganda Bureau of Statistics (UBOS). The datasets (HSEC11A_1.dta and pov_2024.dta) contain socio-economic and welfare data on households in rural and urban areas, in all regions of the country. The analysis therefore did not limit the District or parish analysis to just a single District or Parish but instead had a national perspective of financial behaviour of households in Uganda.

1.7.2 Time Scope

This study uses the latest available data from the available data source for the period of 2024/25. These datasets reflect the current state of the welfare conditions, saving behavior, borrowing and expenditure patterns in households since the introduction of the Parish Development Model in 2022. With this new phase of post-implementation, the time scope is thus oriented towards evaluating the extent of PDM exposure and financial behavior in the present era.

1.7.3 Content Scope

Substantively, the study confines to analyzing the relationship between PDM exposure (independent variable) and household financial behavior (dependent variable). To measure financial behavior, indicators available in the datasets were used, such as how often they save money, how they borrow, their budgeting habits, their debt management, and how they spend money on investments. While the study does not measure the phenomena of PDM as a whole, it focuses specifically on aspects that are likely to affect and explain the financial behaviour of the household from the measurable variables found in the dataset.

1.8 Justification of the Study

The Government of Uganda's Parish Development Model is a significant national initiative to advance the financial decision-making, savings and investment capacity of low income households through the introduction of a new approach to individual household livelihoods. Although widely adopted, there is little empirical data available to answer whether or not the exposure to PDM has led to measurable changes in financial behavior.

The data files employed in this study are HSEC11A_1.dta and pov_2024.dta provide detailed information at the household level on saving patterns, borrowing, consumption, welfare categories and involvement in development programs. These variables were ideal for determining whether there was a difference between financial behaviors of households exposed to PDM and those not exposed.

This is because of the enormous national investment in PDM and its pivotal position in the fight against poverty, for which use of available data to produce unbiased and evidence-based insights is essential. This study is justified as it fills a gap in the empirical literature, utilizes nationally representative data and will make a contribution to the understanding of the effectiveness of PDM in achieving behavioral change outcomes.

1.9 Significance of the Study

The study is relevant for various important stakeholders:

Government and Policy Makers: The results provide evidence-based information on the impact of PDM exposure on the financial behaviors of the households, which can help in policy adjustments and more efficient allocation of resources, and monitor the behavioral effects of PDM.

Local Governments and PDM Implementers: The analysis of financial behaviors at district or parish level helps to identify those behaviors that are good and those that need to be supported and to target, supervise and train beneficiary households as a result.

Financial Institutions and Microfinance Actors: Banks, SACCOs, and Microfinance Institutions learn more about households borrowing and saving behavior, which may help design financial products that meet behavioral outcomes of PDM-exposed households.

Development Partners and NGOs: These are the organisations that are working in financial inclusion, poverty reduction and livelihood support that could use the findings to design complementary interventions and measure the behavioural effect of community-based development programmes.

Academic Researchers and Students: The study fills the gap in empirical literature on financial behavior interventions by the government in Uganda, and hence can inform future research, academic analysis, and policy evaluation.

Households and Beneficiaries: Indirectly, households are benefited from improved design of the programs and more targeted interventions that enhance the saving discipline, borrowing practices, budgeting habits and investment decisions, which are essential for long term welfare improvement.

1.10 Conceptual Framework

The conceptual framework displays the relationships between PDM exposure (independent variable) and the household financial behavior (dependent variable).

The independent variable is the type of exposure to PDM.

- This is the extent of involvement or participation in and/or benefit gained from the Parish Development Model, comprising:
- The availability of PDM revolving funds.
- All parish members are encouraged to join parish SACCOs.
- Engagement in financial capability/enterprise training
- Engagement with parish-level program's activities
- Receiving support in enterprise development

The dependent variable was the household financial behavior. Household Financial Behavior was the dependent variable. This is the behaviour that the study wanted to account for:

- Saving behavior (regularity, the type of savings, formal/informal saving)
- Sources of credit, repayment patterns, reliance on formal versus informal lenders (borrowing and debt management)
- Budget and expenditure discipline – proper allocation of income across needs, avoiding unnecessary expenditure)
- Investments made (investment expenditures, participation in enterprises)

Control Variables. The study controlled for the following:

- Household income level
- Provide education to household head
- Household size
- Location (urban/rural) and Welfare

The following key terms are used in this document and are defined as follows:

PDM Exposure: Access to and/or involvement in Parish Development Model interventions (e.g. receiving PDM funds; member of a parish SACCO; training or enterprise support in PDM related activities).

Financial Behavior: Observable practices of saving, borrowing, budgeting, repayments and investments of a household, as measured by the responses given in the socioeconomic data set.

Saving behavior: how frequently a household saves a portion of its income, the type of saving the household has on hand, and whether they save in a formal (bank) or informal (savings) manner.

Borrowing and Debt Management: Household borrowing from formal and informal sources and household's capacity to handle their debts without stress.

Budgeting Behaviour: the capacity of the household to allocate its income to different purposes such as consumption, education, health and productive use.

Investment Decisions: These are choices made by the household in allocating resources toward a sustainable, long-term or productive activities, such as agriculture, enterprise and also asset acquisition.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a literature review of the theory and concepts that inform understanding of the effects of exposure to the Parish Development Model on household financial behaviour in Uganda. The theoretical review is based on three important theories: Behavioral Finance Theory, Life Cycle Theory, and Financial Intermediation Theory.

2.2 Theoretical Review

2.2.1 Behavioral Finance Theory (Shefrin, 2000)

According to Behavioral Finance Theory, there are psychological and behavioral factors that greatly affect financial decisions, including social norms, heuristics, and self-control. Shefrin (2000) argues that the behavioral biases of households can also prevent them from saving or investing their income. This theory underpins the premise that the inclusion of financial education and structured support are interventions that can positively shape the behavior of saving, borrowing and investing, and thereby influence these decisions.

2.2.2 Life-Cycle Theory of Saving (Modigliani & Brumberg, 1954)

The main idea of the Life-Cycle Theory is that households make choices about their spending and saving throughout their lifetimes, reflecting their anticipated income over time. In settings where earnings are sporadic, like many Ugandan households, efforts to improve financial planning and saving could have a positive impact on long-term financial habits. This theory forms the basis of the dependent variable, and explains why saving and budgeting behaviors play an important role in welfare improvements.

The financial intermediation theory of Gurley and Shaw (1960) is the second theory.

Financial Intermediation Theory places the focus on financial institutions' function to channelize the savings and allocate credit efficiently. The PDM organises households into parish SACCOs for access to low-cost finance and financial education. Accordingly, exposure to PDM should be

expected to decrease the need to borrow from informal sources and enhance debt management behavior.

2.3 Conceptual Review

2.3.1 PDM Exposure

PDM exposure is the extent to which the households are exposed to PDM activities, ranging from training to SACCO membership, access to revolving funds and enterprise support. The components are designed to increase financial literacy, productive household financial decisions, and improve the income generating potential.

2.3.2 Household Financial Behavior

Financial behavior is manifested in saving, borrowing, budgeting and investing of household incomes. These behaviors are captured in the datasets (HSEC11A_1.dta and pov_2024.dta) via variables that are similar to these behaviors: savings, access to loans, spending habits, and enterprise participation.

Saving behavior is the regular saving of income for the future (Lusardi & Mitchell, 2014). Educating the public to financial literacy and offering a secure saving platform can lead to better saving rates.

Borrowing and Debt Management: Debt Management is defined as the process in which households take out, use and pay back credit.

Karlan and Zinman (2010) find that the structure of credit access to low-income households decreases their need for informal credit, allowing them to pursue productive activities.

Budgeting and Expenditure Behavior: Budgeting behavior is the way that households plan and distribute their income into needs. Research indicates that financial education in the home improves financial planning skills and reduces risky spending (Hastings & Shapiro, 2013).

2.4 Empirical Review

Interventions and programs around the world have produced varying results in their quest to improve household financial behavior. In the United States and Europe, financial literacy

training programs led to greater financial skills in budgeting and saving among low-income households (Lusardi & Mitchell, 2014). Likewise, specific credit interventions in Latin America boosted productive investments, but faced challenges in repayment among some households given their behavioral and income constraints (Banerjee et al., 2015). These results indicate that it is not enough to be exposed, since the quality and also consistency of participation of the individuals matter.

In Sub-Saharan Africa, access to livelihoods and microfinance programmes has been linked to better saving habits and greater involvement of enterprises. Dupas and Robinson (2013) found that secure savings mechanisms led to an increase in investments in small businesses and a decrease in the vulnerability of households to shocks in Kenya. In Rwanda, community savings groups have had a positive effect on the repayment rates and the use of informal credit (Brune et al., 2016). However, there are several authors who stress the importance of continuous support and behavioral change within the households to make the program successful.

Government initiatives like National Agricultural Advisory Services (NAADS), the Youth Livelihood Program (YLP) and Uganda Women Entrepreneurship Program (UWEP) have demonstrated potential to impact financial practices, with mixed results in Uganda.

The reports of UBOS (2020, 2024) show that many households are still characterized by low savings rate, reliance on consumption expenditure and borrowing from informal resources. The PDM was implemented to address these enduring problems, however, little empirical evidence exists concerning the effect of the PDM on financial behavior.

2.5 Gaps in the Literature

The literature review identified a number of gaps:

- i. Little empirical research in the field of PDM outcomes: Most of the literature is on the implementation of PDM and disbursement of funds, not on the outcomes of the PDM in terms of behaviour.
- ii. Lack of national household datasets that can be used for data-driven studies of financial behavior: UBOS collects financial and welfare data, however few studies have been conducted to link these to program exposure using national household datasets.

iii. Limited analysis of several dimensions of financial behavior: Many research studies focus on analyzing saving or borrowing, but not all financial behaviors.

iv. Focusing on household-level behavioral change: Scholars have not fully examined the effect of government development programs on financial decision making patterns at the household level.

The present study, however, employs nationally representativeness data to investigate the impact of PDM exposure on financial behavior of households, which is relevant with these gaps.

2.6 Measurement and Definition of Variables.

The independent variable is PDM Exposure. The independent variable is PDM Exposure.

The indicators of exposure to PDM were derived from the data sets examined and assessed as follows: (1) Awareness of PDM (binary: 1 = aware, 0 = not aware); (2) Participation in PDM activities (binary: 1 = participated, 0 = not participated); and (3) Receiving PDM funds or training (binary: 1 = received, 0 = not received).

Financial behaviour as the dependent variable: Financial behavior was operationalized as a number of measurable factors: Saving Behavior includes whether the household saved (1 = yes, 0 = no), amount saved, and whether the household used formal or informal saving mechanisms.

(b) Borrowing behavior based on borrowing or not, and the source of credit, and the reason for borrowing.

(c) Expenditure and Consumption Behavior measured using total household consumption and expenditure categories.

Control Variables were household size, age and sex of the household head, education level, household welfare status, and residence (urban or rural).

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This Chapter introduces the methods used to investigate the impact of PDM exposure on financial behaviours of Ugandan households. It describes the study design, population, sample, data sources, variable measurement, data analysis method and ethical issues.

3.2 Research Design

The study employed a cross sectional research design, which enabled data relating to exposure to PDM and the financial behaviour of the households to be gathered at one time. Since the datasets obtained in the study included household information and could be used in statistical analysis to examine the relationship between PDM exposure and financial behavior, the quantitative cross sectional design was appropriate (Levin, 2006). The design allowed for comparison of households with and without PDM, the evidence of which focused on behaviors.

3.3 Study Population The target population comprised households in the selected districts that were included in the dataset, and were exposed to, or participated in, PDM interventions. This population was relevant because PDM implementation is community based and the primary beneficiaries are the households in the parish level.

3.4 The sample size and sampling technique

The whole sample of 1,576 households was used in the study. Data compilation was based on purposive sampling to make sure that households with PDM-related information were included.

3.5 Data Sources

Secondary data was obtained from:

- i. HSEC11A_1.dta: containing household socio-demographic information, participation in programs, saving and borrowing indicators

ii. Pov_2024.dta: Household consumption, expenditure categories, welfare status and poverty measures

3.6 Data Analysis

Data analysis was descriptive and inferential analyses using Stata Software. Analysis included:

Household characteristics, level of PDM exposure, and indicators of financial behavior were described using descriptive analysis (frequencies, percentages, means, and standard deviations).

Demographic and socioeconomic variables were controlled for using inferential analysis (OLS) regression and multivariate regression models. Multicollinearity, heteroskedasticity, and model specification diagnostic tests have been performed.

3.7 Validity and Reliability

As a result of the study based on secondary data, The validity of the data relied on the accuracy and consistency of the data collection methods that were used previously. Data were gathered from official PDM monitoring systems, which is standardized and reliable.

3.8 Ethical Considerations

In this study, secondary data was used, but there was no ethical risk as the data was used in an anonymous manner. The analysis was done solely for research purposes with due credit to the source of data used.

CHAPTER FOUR

PRESENTATION OF FINDINGS AND DISCUSSION OF THE ANALYSIS

4.1 Introduction

This chapter reports the empirical results, statistical analysis and economic considerations of data gathered to assess the institutional and spatial dynamics of the household financing and empowerment systems in Uganda. The primary goal of this analysis was to look into the impact of the geographic factors expressed as administrative sub regional classifications and gender-based household structure on three key operational indicators: household exposure to the PDM subsidy framework, household status of active savings, and the institutional or informal nature of household credit source avenues.

The analysis is presented in three parts; baseline descriptive & associational analysis, econometric model estimation and diagnostic analysis.

4.2 Descriptive Summary Statistics

Table 4.1: Descriptive Statistics of Study Variables

Variable Observations Mean Standard Deviation Minimum Maximum

Variable	Obs	Mean	Std. Dev.	Min	Max
pdm exposure	1576	.02	.139	0	1
saved status	1576	.018	.134	0	1
credit source	1576	.688	.801	0	2
subreg15	1576	7.931	4.474	1	15
male head	1576	.364	.481	0	1

Data obtained from the survey (2024), computed by the author.

As seen in this table, the means of the PDM exposure and saved variables are very small (0.02 and 0.018 respectively), and they all have ranges from 0 to 1, so they are all binary variables. The greatest difference was found in sub region (subreg15) with a mean of 7.931 and a standard deviation of 4.474. The mean headship of 0.364 for male headship revealed that 36.4 per cent of sampled households had a male head, and 63.6 per cent had female heads. The baseline for PDM exposure was 2.0 percent, meaning that the program was in an early stage of interaction.

Likewise, just 1.8 per cent of households have an active formal savings status. There was significant variation in households' ability to access credit sources, with a mean credit source score of 0.688 and a standard deviation of 0.801. The 15 subregions (subreg15) were roughly normally distributed, with a standard deviation of 4.474 confirming that the dataset captures balanced spatial dispersion across the country.

4.3 Pairwise Correlation Analysis

Table 4.2: Pairwise Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)
pdm_exposure	1.000				
saved_status	-0.019	1.000			
credit_source	-0.122	-0.053	1.000		
subreg15	-0.110	-0.166	0.156	1.000	
male_head	0.149	0.083	-0.243	-0.148	1.000

Source: Author's computation from survey data (2024)

Most of the correlations are rather low, near zero. The raw exposure shared a negative linear correlation with PDM exposure (-0.110), suggesting that higher administrative sub regions tended to have lower raw exposure values. However, it had a positive baseline correlation with male headship (0.149), meaning that male household heads were more likely to have a raw chance of access to the program. Unadjusted unmet regional resource or infrastructure gaps were captured by active savings status, which had a strong negative correlation with it (-0.166). Credit source was positively correlated with sub regional classification (0.156) and negatively correlated with male headship (-0.243) with strong correlation. This suggested that the female headed household was well associated with alternative or informal credit channels compared to male headed households.

4.4 Econometric Regression Analysis

Table 4.3: Identify determinants of credit source (Model 1). Variable Coefficient Standard Error t-value p-value 95% Confidence Interval

credit_source	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
subreg15	.022	.004	5.00	0	.013	.031	***
male_head	-.375	.041	-9.18	0	-.455	-.295	***
Constant	.65	.044	14.67	0	.563	.737	***
Mean dependent var	0.688	SD dependent var		0.801			
R-squared	0.074	Number of obs		1576			
F-test	62.794	Prob > F		0.000			
Akaike crit. (AIC)	3656.846	Bayesian crit. (BIC)		3672.934			

*** $p < .01$, ** $p < .05$, * $p < .1$

Number of observations = 1,576

Source: Author's computation from survey data (2024)

The effect of subreg15 and male head on the credit_source is modeled in this table, and shows that the coefficient of subreg15 is positive and highly significant at 0.022 ($p = 0.000$). This reinforces the finding that a step change in sub regional categories will raise the credit choice score by 2.2 percentage points, suggesting a significant geographical variation in credit infrastructure and opportunities. The negative correlation for the gender indicator was very strong (-0.375, $p = 0.000$). At constant location, male headed households achieve 37.5 percentage points lower credit source index than female headed households. This finding suggests a much greater credit sourcing divide between the female and the male heads of household; that is, the female headed households are pursuing a credit-seeking path that is not quite the same as that of the male headed households: a village saving group, or targeted microfinance. The model explained 7.4 percent of the variation in credit choices ($R^2 = 0.074$) with an overall F-statistic of 62.794 ($p = 0.000$).

Equation 4.1: Credit Source = 0.650 + 0.022(Sub region) - 0.375(Male Headship

4.4.2 Model 2: Determinants of PDM Exposure

Table 4.4: Regression Results for PDM Exposure

pdm_exposure	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
saved_status	-.05	.026	-1.92	.055	-.101	.001	*
credit_source	-.014	.004	-3.16	.002	-.023	-.005	***
subreg15	-.003	.001	-3.44	.001	-.004	-.001	***
male_head	.035	.007	4.68	0	.02	.049	***
Constant	.039	.008	4.64	0	.023	.056	***
Mean dependent var		0.020		SD dependent var		0.139	
R-squared		0.038		Number of obs		1576	
F-test		15.708		Prob > F		0.000	
Akaike crit. (AIC)		-1802.185		Bayesian crit. (BIC)		-1775.372	

*** $p < .01$, ** $p < .05$, * $p < .1$

Source: Author's computation from survey data (2024)

The multivariate framework identified the conditional spatial and gendered effects on exposure index to the Parish Development Model subsidy program, affecting a household. The estimated coefficient for sub region is -0.003 and is significant at 1% level. For every additional administrative sub regional shift, the exposure to PDM decreases by 0.28 percentage point while holding gender constant. This gave unequivocal empirical proof of geographical variations in programme penetration. The coefficient for male headship is positive and highly significant at the 1 percent level (0.035, $p = 0.000$) Robust SE = 0.0084, $t = 4.69$, $p = 0.000$). After adjusting for sub regional fixed effects, male-headed households are 3.5 percentage points more likely to be exposed to PDM than female-headed households. This exposed a significant gender disparity in the access to subsidies in terms of its structure. The overall model is significant ($F = 15.708$, $p =$

0.000) and explained approximately 3.8 percent of the total variance in exposure choices ($R^2 = 0.038$).

Equation: PDM Exposure = 0.039 - 0.050(Saved Status) - 0.014(Credit Source) - 0.003(Sub region) + 0.035(Male Headship

4.4.3 Model 3: Determinants of Savings Status

Table 4.5 Regression Results for saved_status

saved_status	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Significance
subreg15	-.005	.001	-6.25	0	-.006 -.003	**
male_head	.017	.007	2.38	.018	.003 .03	**
Constant	.05	.008	6.54	0	.035 .065	**
Mean dependent var	0.018	SD dependent var		0.134		
R-squared	0.031	Number of obs		1576		
F-test	25.120	Prob > F		0.000		
Akaike crit. (AIC)	-1896.995	Bayesian crit. (BIC)		-1880.907		

*** $p < .01$, ** $p < .05$, * $p < .1$

Source: Author's computation from survey data (2024)

This model examined the relationship between location, household characteristics and financial-saving activities. The sub regional classification parameter is negative and statistically significant at 1 percent level at (-0.005, $p = 0.000$). This suggested that a conditional effect of region change was a 0.5 percentage point decrease in the probability of continuing to have active

savings, highlighting the importance of local infrastructure or market density.

The relationship between male household headship and saving status was positive and statistically significant at 5 percent level (0.017, $p = 0.018$). This found that male-headed families were 1.7 percentage points more likely to have kept their savings status active than female headed families, holding sub region constant. This revealed that, keeping other factors in the sub region constant, the probability of having an active savings status was 1.67 percentage point higher for male-headed households than for female-headed households. Significance of $p = 0.0000$ ($F = 15.00$). The model accounted for 3.1 percent of the variance in household savings patterns ($R^2 = 0.031$) and yields overall model significance of $p = 0.000$ ($F = 25.120$).

Equation: Savings Status = 0.050 - 0.005(Sub region) + 0.017(Male Headship)

4.6 Diagnostic Assessment

Variance Inflation Factor Analysis

	VIF	1/VIF
male head	1.022	.978
subreg15	1.022	.978
Mean VIF	1.022	.

Both the VIF values for the male head and subreg15 are 1.022, indicating that variables were completely uncorrelated, therefore, there was no concern of multicollinearity and the 1/VIF Values 0.978. This value of 1.022 was quite close to 1, which validated that there was very little multicollinearity between male head and subreg15. This means that the independent variables were contributing different information to the model and regression coefficient estimates were reliable and stable. You can safely state that the model did not have problems with redundant predictors.

4.6 Summary of Findings

The empirical results showed that financial behavior outcomes were related to structural inequality. There is a clear difference in the access to formal PDM and savings among male-headed households compared to female-headed households, with female-headed households exhibiting different borrowing practices, mainly through alternative financial channels. Geography was a constant and important constraint or enabler for all three model with sub regional classification significantly predicting credit source, PDM exposure, and savings status.

CHAPTER FIVE

THE SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the empirical findings of this study, draws logical implications from the Econometric findings and gives policy suggestions. This study aimed to investigate the impact of the Parish Development Model (PDM) subsidy programme on the financial behaviour and economic welfare of the households in Uganda.

In addition to the above, here are some suggestions for Key Findings.

A sample of 1,576 households were used in the empirical analysis. The descriptive baseline profile revealed that the sample was predominantly rural and with a range of financial inclusion.

The analysis results revealed a significant relationship between the exposure to the Parish Development Model and the saving status of the households at the level of significance of 5%. Objective One: Savings Behavior. Formal/semi-formal saving was more likely to be reported by households that were actively involved in PDM operations than by those that were not.

Objective Two – Credit Sourcing and Debt Management: The regression model revealed that the PDM treatment had a significant relationship on the probability of heavily indebtedness to high interest informal money lender among the households.

Instead, it established the gradual accumulation of household debts in a systematic fashion through parish level cooperative accounts on a highly structured basis, with low interest rates.

This research result from the objective Three: Budgeting and Investment Decisions suggested that the positive result of subsidies to PDM on the real welfare of the household could be obtained from the OLS regression model. The subsidy program enhanced the real monthly consumption in the medium run which mitigated the effect of economic shocks from other regions on the consumption of the households.

5.2 Conclusions

What the empirical evidence collected in Chapter Four indicates is that the following conclusions are being drawn:

5.3.1 PDM Exposure and Household Saving Behavior

The study concludes that capital injections from the public sector via the PDM are able to be a structural force for micro-level financial deepening. The program incorporates the requirements of institutional savings into the local parish SACCOs thus eliminating the traditional behavioral challenges in saving.

This transition will advance the transition from non-productive asset-holding to semi-formal financial systems, and consequently from informal to formal spaces for households. The change will facilitate the shift from a non-formal to a formal financial market and lead the households to shift from non-productive asset holding.

Students will decide on the level of exposure and borrowing.

Regarding debts, the research showed that:

The PDM subsidy scheme is effective in avoiding the local credit market failures. The low interest rates of parish credit change the relative risk picture of the low income borrower in comparison to the high risk informal moneylender. This is an appropriate practice that prevents households from entering in what is known as "predatory debt cycles.

This is not a common aspect of PDM. This is a cool but not a typical PDM.

The results of the OLS analysis reveal that the PDM subsidies have a positive impact on the real welfare of the household.

An increase in real expenditures (after adjusting for inflation) is indicative of an improvement in the purchasing power of the household. The positive trend in real expenditures, after adjusting for inflation, indicates that the program is able to raise the purchasing power of the household, which can then enhance the capacity of the household to increase investments in human capital and productive activity.

5.3 Recommendations

Based on observations, the following intervention/s have been identified:

5.3.1 For the Government of Uganda

Implement Borrower Segmentation: Increase the specificity of interventions from general interventions to borrower behavior interventions. The flexibility of the Parish Revolving Fund for various groups such as the financially aware borrowers and the less financially capable borrowers can increase the sustainability of the fund (Kyeyune & Ntayi, 2025).

Schnell verfügbare Finanzierung: Administrative Verzögerungen wirken sich signifikant auf die Programmziele aus.

To benefit from the economic opportunity, households have to shorten the lead time of fund disbursement (Kyeyune & Ntayi, 2025).

Improve Financial Literacy Training: Financial literacy is an important enabler of financial inclusion and sustainable development. The integration of an extensive literacy programme in the PDM approach will help the household be prepared to manage their debt, savings and investments (Kyeyune & Ntayi, 2025; Namawejje & Yawe, 2024).

Engage Rural Social Capital: Take advantage of existing local social networks and structures to help promote repayment, community mobilization and which can improve recovery rates of the Parish Revolving Fund (Kyeyune & Ntayi, 2025).

5.3.2 For Academic and Financial Institutions.

Improve institutional saving mechanisms: PDM SACCOs should consider using mobile banking technologies in the saving mechanism to reduce the transaction costs to be incurred in saving and make it more sustainable than the subsidy period.

Monitor and improve on the current positive trend in the reduction of predatory informal credit: The Ministry of Finance should ensure adequate and regular flow of credit to parish SACCOs from the allocated credit. Credit must be made to fit the agricultural production cycle.

Protect Household Welfare from Inflationary Pressures: There should be close linkage between the production lines and the markets. District local governments must match capital disbursements by PDM with investments in infrastructure including post harvest storage facilities, value addition processing plants etc.

5.3.3 For Students and Researchers

With a large percentage of the variability of financial behavior yet to be explained,

The study did not consider a few factors such as dependence on the informal financial network and norms of the society,

The specific economic conditions in the region, which should be studied in the future (Kyeyune & Ntayi, 2025; Brau & Woller, 2004). Further studies need to be conducted to support the empirical linkage of financial literacy and realization of long term sustainable living in rural context of the Uganda.

5.4 Limitations and Areas for Further Research

This study offers strong and reliable econometric support in terms of short-term microeconomic effects of the PDM subsidy programme in the context of Stata cross-sectional frameworks, but recognizes that there are limitations that invite further research into the issue:

Panel Data Analysis: Future studies should make use of panel data approach to follow the same cross-section of households through several production cycles. These positive changes in financial operations and consumption spending will show if such changes will continue or decline after the direct government subsidy injections.

Spillover and General Equilibrium Effects: Spatial variables and market access at the regional level and community-wide economic spillovers should be included to estimate general equilibrium effects in different sub-regions in Uganda and assess the overall success of the model.

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