

**INFLUENCE OF COMMERCIAL BANKS ON THE SUSTAINABILITY OF AGRICULTURE
SECTOR IN TANZANIA
CASE OF SELECTED COMMERCIAL BANKS**

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Abstract

The study assessed the influence of commercial banks on sustainability of agriculture sector in Tanzania. The study was guided mainly by two predicting variables which were tested on agriculture sector sustainability as the dependent variable. The predicting variables include loans contribution and repayment periods. The study employed explanatory design by means of causal relationship testing with the results collected from the bank employees and the beneficiaries as customers from the sample of 200 respondents. Results were gathered using structured questionnaires. The collected results were filled in SPSS data set version 24.0 for the purpose of generating statistical tests used to present the findings. Correlation and multiple regression analysis were used to describe the relationship between study variables. Findings revealed that all two predicting variables were found positive with significant effect statistically on agriculture sector sustainability as the dependent variable with $p < 0.05$. In that case, the implication of the results is that agriculture sector sustainability through commercial banks in Tanzania is influenced with loans contribution and repayment periods.

KEYWORDS: *Commercial Banks Agriculture Sustainability, Loans Contribution and Repayment Period*

1. Introduction

Agricultural sector in Tanzania remains the largest sector in the economy and hence its performance has a significant effect on output and corresponding income and poverty level. The sector contributes to about 27 percent of the country's GDP and about 24 percent to the total exports. Given the structure of Tanzanian economy, it is undoubtedly that the growth of the sector is directly proportional to the socioeconomic development prosperity and poverty reduction (NFYDP, 2021).

The development of agriculture has been an important objective of the Government. The focus has been to produce more food to enhance food security and alleviate poverty, with the ultimate goal of becoming self-sufficient in basic food requirements. The rural and urban economy in Africa particularly in Tanzania depends on agriculture which considered as the life-blood of the country's economy. Agriculture is the main source of income for 90% of rural population in Africa. Agriculture represents a great part of the Africa. African countries represent also 50% of top 20 countries, in terms of the Share of total agriculture/ total exported merchandise in the world (ECA, 2007).

The sustainability of agriculture in African region cannot be isolated from the sustainability of development in the region and beyond. A number of other related definitions are also in common usage. The American Society of Agronomy, for example, defines sustainable agriculture as: one that, over the long term, enhances environmental quality and the resource base on which agriculture depends, provides for basic human food and fiber needs, is economically viable, and enhances the quality of life of farmers and society as a whole (Uptal, 2001). Another definition by MacRae et al. (1990) posits that: Sustainable agriculture is both a philosophy and a system of farming. It is rooted in a set of values that reflects an awareness of both ecological and social realities and a commitment to respond appropriately to that awareness. It emphasizes design and management procedures that work with natural processes to conserve all resources and minimize waste and environmental damage, while maintaining and improving farm profitability (Hornby, 2001).

The bedrock of agriculture and agricultural development in developing countries of sub-Saharan Africa is rural development, without which all efforts at agricultural development will be futile. A large majority of the farmers operate at the subsistence, smallholder level, with intensive agriculture being uncommon. A characteristic feature of the agricultural production system in such countries, Nigeria inclusive, is that a disproportionately large fraction of the agricultural output is in the hands of these smallholder farmers whose average holding is about 1-3 hectares. Also, there is very limited access to modern improved technologies and their general circumstance does not always merit tangible investments in capital, inputs and labor (Mukhtar, 2009).

Current flows of public resources to agriculture are insignificant compared to the needs identified in the framework of the Comprehensive Africa Agriculture Development Programme (CAADP) of the New Partnership for Africa's Development (NEPAD), prepared by the NEPAD Secretariat with the help of FAO. Public withdrawal is of serious concern given that the review of the problems facing sub-Saharan African agriculture demonstrates that their resolution will require considerable

public support, both in terms of additional resources and policy reform. As a result, capital and productivity per agricultural worker are lower in SSA than in any other region of the world.

The agricultural sector in Zambia supports about 80% of the population that is exclusively dependent on agricultural related livelihoods many of whom are poor people in the rural country side. In order to improve the status of poverty and improve rural lives, access to rural finance and intensity of smallholder participation in the financial markets are very important components. Increased Access to rural finance therefore should focus on improving access to banking services and credit in rural areas. In 2011, the Agricultural sector contributed over 16% to GDP and continues to be the largest employer of the Zambian labor force and Government targets over 500,000 new jobs in the agriculture sector over the next 5 years (Budget, 2013).

Challenges surrounding agriculture sector in Tanzania are somehow similar to other parts of Africa. The uniqueness of these challenges depend on the contextual application of various strategies undertaking to improve the sector. To address these challenges the researcher is proposing the commercial banks loans as a strategy to enhance and influence the sustainability of agriculture sector in Tanzania. Agricultural finance refers to financial services, including savings, transfers, insurance and loans, potentially needed to power and move the agricultural sector, that is to say farming and farm-related activities including input supply, processing, wholesaling, and marketing. Most of these activities are conducted in rural areas, in addition to large processing facilities and agribusinesses, as well as largely subsistence-level smallholders located in urban and peri-urban areas (Meyer, 2011).

Commercial banks play an important role in accelerating the development of an economy. Country's development is not possible to achieve without the development of the agriculture sector. The instability in food production throughout the world is due to different natural calamities, and the special interest of developed nation in producing bio-fuel using crops and protectionist policy adopted by many former food exporting countries created a situation of urgency on ensuring food security ourselves through investment in the agriculture sector. Sufficient and timely supply of agricultural inputs including agricultural credit is necessary for ensuring more agricultural production.

Furthermore, Agricultural credit refers to short-term, intermediate term and long term credit disbursed to meet the specific financial needs of farmers which are determined by planting, harvesting & marketing cycles. Short-term loans are provided for seasonal agricultural production activities, long term loans are provided for purchasing of irrigation equipment's, agricultural machinery, livestock, horticulture, fisheries and establishment of agro based industries. Another way it can be said that agricultural credit refers to the amount of money that the farmers borrow to meet their production requirements as well as their current consumption needs. (Sarker et al. 2006).

At present, agricultural credit has turned as an essential input in agricultural development. For ensuring more agricultural production, it requires huge capital investment for purchasing improved agricultural inputs. The arable land of Bangladesh is appearing by 1% every year with 1.5% increase of population per year. So, it is a great challenge for Bangladesh in ensuring adequate food as opposed to growing population. In this situation there is only one option to increase

agricultural production through intensive agriculture. Adoption of intensive agriculture requires huge capital investment but poor and marginal farmers lack sufficient capital (Alauddin, 2014)

However, access to formal institutional finance is difficult for most small businesses because of the small nature of their operations, which in turn makes their needs small, and as a result loan administration becomes costly and unattractive to established suppliers of finance. Lack of adequate and reliable collateral and unfamiliarity with complicated loan application procedures and paperwork further limits their access to formal finance from banks. This difficulty occurs because banks do not have enough information about these businesses, making them unwilling to provide the much-needed finance due to the perceived risk and high transaction costs (Alauddin, 2014). Various research works of researchers have already been proved that availability of agricultural credit has a positive impact on agricultural productivity. The study assessed the influence of commercial banks on the sustainability of agriculture sector in Tanzania; since it was noted that; little still had been envisaged in the area requiring the need to address the area with further additional knowledge.

2. Literature Review.

The study was guided with rational choice theory which asserts that people use rational calculations to make rational choices and achieve outcomes that are aligned with their own, personal objectives. The ideas behind rational choice theory are said to originate in Philosopher and economist Adam Smith's essay, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Smith, 1776). In short, this essay proposed that human nature has a tendency toward self-interest, and this self-interest resulted in prosperity through the control of the invisible hand the collective actions of the self-interested human race.

Adam Smith's ideas around the invisible hand were inspired by the work of Thomas Hobbes in "*Leviathan*" (1651), who stated that political institutions function as a result of individual choices. Appropriating its economic origins, these social theorists stated that social behavior is driven by a rational calculation of costs and rewards (Nickerson, 2021). Homan's (1958) essay on social behavior as exchange, for example, argued that social interactions and small group processes can be explained by principles from microeconomic theory.

The proponents of the rational choice theory believe that the individual making the decision is a "representative" of a group in a financial market, such as farmers. The analysis of rational choice theory of demand for financial services generally involves a description of the following: (i) the desire for financial services (savings, credit, and money transfer services); (ii) nature and type of services provided by the financial institutions; (iii) the condition under which these services are provided (Frejohn and Fiorina, 1974). The individuals face the problem of choice among services provided by the intermediaries.

The approach of the rational choice theory is based on the fundamental principle that the choices made by the individual are the best choice to help him/her to achieve their objectives in the light of all the uncontrollable factors. The utility function is used by the rational choice theory as a mathematical function that assigns a numerical value to each of the possible alternatives the individual making the decision faces (Boudon, 2003). The demand for financial services is a

function of the service characteristics, the attributes of the provider of the service, and the decision-making unit.

This theory has been heavily criticized on the basis that the assumptions made under the rational choice theory fail to take account of the fact that the success of the outcome of a decision is also influenced by the conditions that are not within the control of the individual making the decision (Nickerson, 2021). Despite this criticism, the theory has demonstrated a good basis in explaining how individual economic decisions are affected by their attributes. In this regard, this theory is important in explaining access to financial services as the attributes of the individual heavily influence both the demand and supply dimensions of access to financial services.

Besides that, several studies had been envisaged in the area including Afolabi, (2010), the borrowers' inability to repay loans immediately put pressure on lenders' ability to repay their own investors and funders and to fund their on-going operations. The borrowers' short-term economic crisis thus produced a liquidity crunch for lenders. The institutions' survival will depend on the duration of the crisis, how much financial cushion the financial institutions have, the willingness of their own creditors to be patient and forgiving, steps taken by regulators and donors, and the ability and willingness of customers to eventually make good on their obligations. Another problems confronting farmers in Africa is inadequate capital and repayment periods despite the fact that farmers produce the bulk of the food consumed locally and some export crops which generate foreign exchange for the money (Kamla-Raj, 2010).

Olagunju and Adeyemo (2007) studied the factors influencing repayment decision among smallholder farmers in southwestern Nigeria and reported that farmers' experience, farming region, transaction cost of borrowers, number of visits to the financial institutions, and proper education of the farmer were the main factors affecting reimbursement.

The study of Bagheri and Najafi (2004) in Fars Province of Iran about recovery of agricultural loans indicated that incidence of natural disasters, ratio of farm income to total, amount of farm income, crop insurance, savings amount, expected time for receiving loan, supervision of banks on loan, length of repayment period, loan application activity, off-farm income, area cultivated, level of education, and city of the applicants are the main factors to discriminate defaulters from non-defaulters of loans (Pishbahar., 2018)

Kumar (2010) suggested that credit is one of the critical inputs for any agricultural development. Commercial banks have emerged as a major source of institutional credit to agriculture. Access to credit is fundamental for economic activity and medium to long-term growth, loans allow borrowers to achieve several economic goals, from consumption to investments. For this reason, particularly in modern advanced economies, the amount of credit/debit has achieved remarkable levels compared to economic activity. In fact, its growth rate has been much higher than economic growth in the last decades (Schularick& Taylor 2012, Cecchetti et al. 2011). Credit availability influences the real economy in the short run via its capacity to expand some aggregate demand components (Khan & Thomas 2013, Guerrieri&Lorenzoni 2017), household consumption and firms' investments in the first place (Cafiso 2019).

1. Conceptual Framework

This is the model describing the variables and the pattern of relationship testing in facilitating knowledge generation process. They include predictors and the dependent variables shown in figure 1 below.

3. Methodology

The study assessed the influence of commercial banks towards sustainability in agriculture sector in Tanzania. The study was guided by the assumption that sustainability in agriculture sector is positively influenced through commercial banks. Explanatory design was used in facilitating knowledge generation through causal relationship testing. Two predictors were identified for testing towards sustainability in agriculture sector including loans contribution and repayment period. The study employed primary data which were gathered from the sample of 200 respondents both customers and employees by means of structured questionnaires. The collected results were computed in SPSS software to produce relevant statistics to present the results. Multiple regression analysis was used to describe the existing relationship between study variables. Therefore, the study was illustrated using the models as follows.

$$SAS = \beta_0 + \beta_1LC + \beta_2RP + e$$

Where by,

SAS = Sustainability in Agriculture Sector

Bo= Constant Factor

β_1LC = Loans Contribution

β_2RP = Repayment Period

e = Random variable.

Findings and Discussions

The findings are illustrated to show the contribution of each predicting variable to the dependent variable. Hence, table 1 describes the findings and its implication as follows.

Table 4.8 Multiple Regression

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. error	Beta			
(Constant)	-11.007	3.427		-1.208	.000	
Loans Contribution	2.096	.213	.537	12.462	.015	
Repayment Periods	2.014	.185	.503	12.275	.039	

Source: Field Data (2022)

The findings on multiple regression analysis denotes that all two predictors to the dependent variable which are loans contribution and repayment periods are positive with significant effect statistically on agriculture sector sustainability ($p < 0.05$). The implication of the results is that agriculture sector sustainability through commercial banks in Tanzania is influenced with loans contribution and repayment periods. This is supported with Cafiso (2019) suggesting that sustainability in agriculture can be facilitated with banking sector including commercial banks both in the developed and developing countries.

This is facilitated by the lending opportunities that are offered by the banks through the loans that for the farmers and investors in the sector both small scale and large investments. Despite that, Cafiso (2020) on the other hand suggest that agriculture sector is sustainable both in the developed and developing countries provided that there is adequate funding opportunities including banking support through loans. This is the case with various activities in the sector such as farming, crop trading, and others may be well performed provided that avenues for the funding pattern through loans by the banks and other sources are accessible to the actors involved in the sector within the jurisdiction.

Furthermore, Benmelech et al (2016) suggest that beneficiaries in the agriculture sector through commercial banks by means of loans tend to assure prosperity and growth in the sector in the manner which is sustainable provided the loans constitute adequate and realistic repayment period that correspond with the context. Moreover, Bunn et al (2014) suggest that loans repayment procedures by the banks vary in terms of duration based on the contract that has been entered between the customer and the bank. This is the case they vary in terms of interest rates that for loans with short duration in payment constitute affordable and low interest rates which is contrary with the loans possessing long duration that they constitute high rates in terms of interests to cover the costs of the duration time. In that case, sustainability is perceived on both actors whereas the payback period is determined by the activity that is sought to be performed that may determine whether the loans may take long or short duration.

5. Conclusion

It is clear that agriculture sector sustainability is useful in Tanzania since it is the backbone of the economy that commercial banks have influence on their sustainability. However, the challenges are very severe that they all need to be addressed to assure continuity and growth in the manner which is sustainable. This is very important that the challenges must be dealt upon to foster transformation in the sector in Tanzania. In that regard, it is necessary for adequate measures to be undertaken to address the situation in the context.

6. Recommendations

Since the situation on sustainability of agriculture sector through commercial banks has been encountering shortcomings, the study recommend that the government should encourage changes to the local farmers to operate on formal practices for those who can for the purpose of being well connected with the banks to assure performance in the sector and the activities. This is very important because once the farmers are transformed and become connected with the banks the activities in the sector may transformed quickly and assured with sustainability.

The study also recommend that the government should set standards that may enable the farmers to transform and change on compliance basis to assure growth. This may be done with regard to the context realities. This is the case with enclosure system in Great Britain that the government fostered the changes in the sector by force which successfully the transformation of agriculture in the country to this day.

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