



An Analysis of the Effect of Capacity Building Programs on the Performance of Rice Farmers in Kano State

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Abstract

Nigeria has been one of the major importers of rice across the globe, despite the fact that it is the densest country of the African continent with a population of over 170 million people. Its current economy heavily depends on the oil sector: its foreign exchange earnings depend for 95 % from the oil industry and its public budget for 80%. As such, there is an overwhelmingly large proportion of Nigerians who are food insecure. They are spread across both rural and urban settings in Nigeria, though most are in rural areas. The aim of this study is to analyze the effect of capacity building on the performance of rice farmers in Kano State. The study used survey research design. The sample size of this study comprised 252 rice farmers who participate in one or more capacity building program in Kano State. The data was analysed using Pearson correlation coefficient and multiple regression analysis with aid of statistical package software for social sciences (SPSS) version 23.0. However, the result of this study indicated the significant positive relationship between capacity building programs (access to finance, managerial training and modern technology) and performance of rice farmers in Kano State. This implies that when access to finance, managerial training and modern technology are available to rice farmers, their performance will be increased significantly, this will also reduce the level of rice importation thereby boost employment generation as well as development of Nigerian economy.

INTRODUCTION

The agricultural sector is vital for the economies of many developing countries. Not only does it provide raw materials, food, and employment for the growing urban population, but it also improves the welfare of producers who are poor smallholder farmers. Agricultural development has been a major concern for long across African countries; it is one of the significant areas that need researchers' attentions, it is contributing over 60% towards regional employment and accounting for over 25% of the regions Gross Domestic Product (GDP), agriculture remains one of Sub-Saharan Africa's (SSA) most important sectors. Therefore, Africa remains a strategic continent for the world's agro-food industry as it holds 60% of the world's uncultivated arable land. This makes agriculture a lead sector in Africa, with sufficient scale and comparative advantage, to engender broad based economic growth and poverty reduction.

Nigeria is the densest country of the African continent with a population of over 170 million people. Its current economy heavily depends on the oil sector: its foreign exchange earnings depend for 95 % from the oil industry and its public budget for 80%. However, Nigeria (1960s and early 1970s) became an important exporter of several agricultural commodities like groundnuts, palm oil, cocoa, cotton, but due to a focus on oil and to political unrest, investments in agriculture declined, as a result Nigeria is now one of the largest importers worldwide of wheat, rice, sugar and fish. Unarguably, the Nigerian agricultural sector has gone through a cheered history. The uninspiring performance of the sector in terms of its contribution to the country's revenue has also been a source of concern to successive governments.

This had led to the creation of various initiatives like Growth Enhancement Support Scheme (GESS), Agricultural Commodity Value Chain Development (ACVCD), Agricultural Marketing and Trade Development Corporations (AMTDCs), Agricultural Extension Transformation Agenda (AETA), Nigerian Incentive-based Risk-Sharing System for

Agricultural Lending (NIRSAL) and Youth Employment in Agriculture Program (YEAP) aimed at taking the agriculture sector out of the melancholy (FMARD, 2011).

However, despite various policies that were created in the past, the sector's contribution has remained insignificant, due to challenges like weak access to finance, unfulfilled financial commitments by external investors, high post-harvest losses, and illegal food imports. But with Nigeria's dwindling revenue profile as well as the threats to global food security, more attention is being paid to agriculture. As such, this study is set to examine the effect of capacity building programs on the performance of rice farmers in Kano State, focusing on access to finance, training and modern technology as proxies of capacity building.

Statement of Problem

Nigeria remains food insecure, relying on food imports worth about \$3.0 billion to \$5.0 billion annually, especially wheat, rice, fish, and sundry items, including fresh fruits and vegetables (FGN, 2016). There is an overwhelmingly large proportion of Nigerians who are food insecure. They are spread across both rural and urban settings in Nigeria, though most are in rural areas (FMH, 2007). Therefore, food security is a serious setback among a lot of households in Nigeria.

However, based on the fact that the country is blessed with favorable climatic conditions vast arable land and fertile soils. It has never been in doubt the significant role agriculture should play in the nation's quest to achieve sustainable development. In the sixties Nigeria used to be an important exporter of several agricultural commodities (groundnuts, palm oil, cocoa, cotton) but due to a focus on oil and to political unrest, investments in agriculture declined. As a result, Nigeria is now one of the largest importers worldwide of wheat, rice, sugar and fish (FMARD, 2011).

The main issues in the Nigerian agricultural systems are the scale of farming, the little production and marketing knowledge and capacity, and little developed infrastructure. Access to finance is also a major issue as well as modern technological tools. In some commodities farmers are aging because young potential farmers are not interested and move to urban areas. At the processing side there are little outlets that want to invest back in the value chain. Also, this is for a large extent caused by a lack of finance as well as little comparable advantages (i.e. high cost and low quality) of local produce.

Therefore, to address the above issues the Central Bank of Nigeria (CBN), in line with its developmental functions and in collaboration with the federal government and banks established various agricultural schemes as a way of bridging the funding gap. Such interventions include the Commercial Agriculture Credit Scheme (CACCS), Commercial Agriculture Development Programme (CADP), and the Interest Draw-back scheme, Agricultural Credit Support Scheme as well as the recently introduced Anchor Borrowers' Programme (ABP) (Emeifele, 2021). In view of the above, this study is aim to examine the effect of capacity building on the performance of rice farmers in Kano State, focusing on access to finance, managerial training and modern technology.

Literature Review

Business Performance

Generally, business performance is made up of the actual outcome of an organization measure against its input, which enables organizations to focus on units that need improvement by evaluating the level of work progress in terms of cost, quality and time as well as consolidating in areas with higher output (Hansen & Wernerfelt 1989; Tomlinson 2011; Ringim 2012).

There are a number of criteria used in assessing the performance of SMEs and other organizations for long run survival in the event of globalization and competition. The key indicators used in measuring organizational performance include; profitability, management performance, liquidity, leverage market share, innovation, productivity, quality of goods and services, human resource management (Robinson, 2003).

Capacity Building

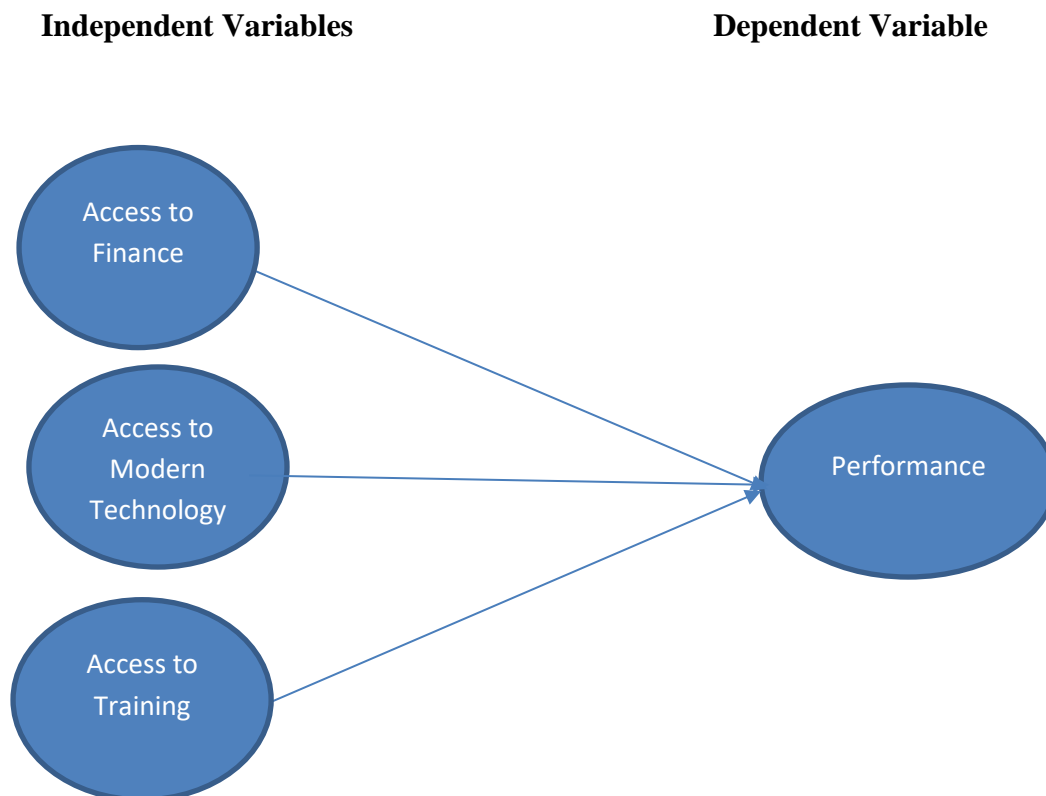
Capacity building program is a very important activity for rice farmers and entrepreneurs as it would help them with skills and experience needed for business (Akanji, 2006, Cheston & Kuhn, 2002; Kuzilwa, 2005). Capacity building is a planned process to modify attitude, knowledge or skills behaviour through learning experience to achieved effective performance on activity or range of activities. Capacity building is the process of increasing the competence in performance of a certain activity (Simister & Smith, 2010). Capacity building, as a process, is capable to improve the ability of an individual, group, organization or system to attain a certain objective (Brown, LaFond & Macintyre, 2001). Therefore, the purpose of capacity building in a work situation is to develop the abilities of the individual and to satisfy the current manpower needs of the organization or business. According to Satterwhite (2007) capacity building is an action that is performed by an individual, an organization and a community to raise capacity through experience, knowledge, skills and other factors. Likewise, Yap, (2009) viewed Capacity building as a process of raising the ability of

the individual, group, organization, community or society to fulfil the meaning and aim that individuals or groups wish to attain based on their needs. However, Milen (2001), states that capacity building is a holistic and a continuous method to strengthen the capability of an individual in performing a certain act and to enhance the happiness of one's life. Overall, this means that capacity building is a process to upgrade the ability of an individual. Thus, capacity building is a way of changing behaviour and or attitude of employees in order to increase the efficiency and the effectiveness of both employees and the organization in general. In view of this, for rice farmers to increase their level of performance, capacity building programs becomes necessary.

Human Capital Model

Human capital theories relate to entrepreneurial development in a similar way as personality structure: sufficient knowledge and working experience in the relevant fields enable business founders to choose more efficient approaches, for example in establishing production processes, making financial strategies, or examining markets for the new product. The human capital of the entrepreneur is the second part of the character-based approach after the entrepreneurial personality. Human capital theory is concerned with knowledge and experiences of small-scale business owners. The general assumption is that the human capital of the founder improves small firm chances to survive (Bruederl, Preisendoerfer and Ziegler, (1992). Therefore, Human capital acts as a resource that serves as human capital which attracts the customers and investors.

Research Model



Methodology

The researcher employed survey research design, the researcher observed what is happening to sample subjects without any attempt to manipulate or control them. The researcher obtained data from primary source which comprise information from rice farmers whose have registered with Rice Farmers Association of Nigeria (RIFAN) Kano State Branch. The study used simple random sampling technique to select 252 rice farmers whose participate in one or more capacity building program on how to operate, finance and market their products. The sample size will also come from 9 Local Governments out of 15 Local Governments of Kano Central Senatorial districts, this justify that 6 local governments was excluded, the reason for the exclusion is because the local governments are within Kano metropolitan, hence the research focus is on rural areas where the rice farmers are mainly located and there is also a little or inadequate

capacity building program. Moreover, the data was collected from rice farmers using structured questionnaire. The data generated for the study was analyzed using Pearson correlation coefficient and multiple regression analysis to establish the relationship and magnitude between independent variables (training, access to finance & modern technology) and dependent variable (performance of rice farmers). The data was also analyzed with aid of statistical package software for social sciences (SPSS) version 24.0.

RESULT AND DISCUSSIONS

Table 1 Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.013	.200		10.044	.000		
A. FIN	.269	.051	.293	5.259	.000	.905	1.105
A. TECH	.055	.046	.168	2.189	.015	.862	1.160
M. TRN	.082	.033	.146	2.485	.014	.818	1.223
R	R ²	Adj. R ²	R ² Change	F. Change			Sig.
.390	.152	.144	.152	17.990			0.000

a. Dependent Variable: PERFOR.

Source: Generated from SPSS, 21 Version

The results of regression analysis presented in table 3 shows a significant $R=.390$, this implies that multiple correlation coefficients between the predictors and the criterion was 39% , while R^2 of .152, this implies multiple correlation coefficients between the predictors and the criterion was 39% , while R^2 of .152 implies that predicting variable (capacity building programs) under the study were able to account or explain 15% variance in the dependent variable (performance), while the remaining 85% was not captured by this study. Furthermore, Cohen and Cohen (1988) classify the R^2 into three (3) categories: 0.02 as weak, 0.13 as moderate and 0.26 as substantial, in view of this classification the present study R^2 is considered moderate. The results also show adjusted R^2 of .144 which implies that capacity building programs were able to explain 14% variation in the performance of rice farmers. The significant F.test of (17.990, $p<0.000$) signifies that the overall significant prediction of independent variable to the dependent variable, this further implies that, p value of 0.000 the model fitness in regressing the relationship between capacity building programs and performance of rice farmers, therefore, F,statistics value measure the strength of regression model with a value of 17.990.

According to researchers like Lind, Marchal and Wathen, (2013), Kumar, Taib and Ramayah (2013) t-value for the estimation of variables significant level is when t-value exceed 1.645 which a significant.

Discussion of Findings

The relationship between access to credit and performance of rice farmers can said to be significant with a result of $\beta=.269$, $t=5.259$, $p<0.000$ this implies that, there is positive and significant relationship between access to credit and business performance of rice farmers in Kano State. The result further suggests that, availability of financial support will lead to an improvement of performance of rice farmers in Kano State. Access to modern technology as second predicting variable under the study, results shows positive and significant relationship with performance rice farmers with values ($\beta=.055$, $t=2.185$, $p<0.015$). This implies that when application of modern technology increase, the performance of rice farmers will increase. The result further suggests that more application of modern technology increase, will lead to better performance among rice farmers in Kano state. Moreover, results of regression on the training as the last predicting variable under the study shows significant relationship with performance of rice farmers in Kano State with values ($\beta=.052$, $t=2.485$, $p<0.014$). This implies that availability of training programs also lead to increase in the performance of rice farmers in Kano State.

CONCLUSION

Theoretically, there are some gaps that exist in the literature regarding the relationship between capacity buildings programs and performance rice farmers in Kano State. Previous studies have not addressed the impact of capacity buildings programs (access to finance, access to modern technology & training) and performance rice farmers in Kano State, none of the previous studies used sample of rice farmers in Kano central senatorial district of Kano State, also there is limited empirical studies in the context of Nigeria. Therefore, the present study has contributed to the body of knowledge by providing empirical evidence about the observed gaps. Therefore, access to finance, access to modern technology & training were found to be related to performance of rice farmers in Kano State.

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