

## EFFECT OF CREDIT USE ON THE ECONOMIC EFFICIENCY OF COCOA SEEDS PROCESSING AND SEEDLINGS PRODUCING ENTREPRENEURS IN SOUTH EAST-NIGERIA

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Article Information	ABSTRACT
Received: 10 <sup>th</sup> January, 2024	<i>This study examined Effect of Credit Use on the Economic Efficiency of Cocoa Seeds Processing and Seedlings Producing Entrepreneurs in South East-Nigeria. A multi-stage random sampling technique was used in choosing the sample. Primary data collected from 180 seeds and seedlings producing entrepreneurs were used for the study. Data collected were analyzed using descriptive statistics and Z-Test. Findings showed that majority (55.56%) of cocoa seed processing and cocoa seedlings producing entrepreneurs used the informal credit while the remaining (44.44%) cocoa seed processing and cocoa seedlings producing entrepreneurs used the formal credit. The Z-test result showed the mean seeds processing formal credit users and informal credit users to be 0.00408 and 0.00446 respectively, while seedling producing formal and informal credit users to be 0.02727 and 0.07227 respectively. The study recommends that formal institutions should make credit available to cocoa seeds processors and seedlings producers to enable them invest more so as to increase their income which will lead to development of the economy.</i>
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### Introduction

Botanically, cocoa is known as *Theobroma cacao*, which belongs to the Stericulinacea family. The origin of cocoa came from the upper Amazon region of the South America (Afolayan, 2020 ). Cocoa remains one of the foremost crops in some African countries, contributing significantly to rural employment, foreign exchange earnings and agriculture's Gross Domestic Product (GDP). Cocoa has a very high food value; it contains more than 15 percent protein, 35 percent carbohydrate and 35 percent fat. The largest producers of cocoa in Africa are Ghana, Nigeria and Cote d Ivoire, the

rest of productivity is from South American countries like Ecuador and mainly Brazil. The cocoa crop is traded on worlds' commodity markets (Abayomi, 2022).

For the sustainability and improvement of the cocoa sector, the Government introduced an exceptional programme to improve the cocoa producing entrepreneurs' productivity such as free distribution of cocoa seedlings to the various cocoa producing entrepreneurs, credit from the Central Bank of Nigeria, and Cocoa Rebirth. The cocoa rebirth programme was mainly designed to create the awareness of the profit capabilities of cocoa, boost the rate of production and industrial processing, draw the attention of the youths into cocoa farming, raise funds for industrial development, and tackle most of the factors accounting for a decline in cocoa production. These factors includes little agricultural mechanization, inadequate credit, disease incidence and use of simple tools (Waliu and Akinmola, 2022 ). The cocoa sub-sector is characterized with entrepreneurs that major in Cocoa pod production, cocoa seeds processing, seedlings production, licensed marketers and exporters.

Credit is of paramount importance in simulating the adoption of improved farm practices by producing entrepreneurs. It is an important support service for increased agricultural productivity. Credit is required for improvement on the land, for the purchase of fertilizer, seeds and supplies of the payment of wages of labour, the purchase of implements, machinery such as tractor and breeding stock etc (Toriola, Adewale, Lawal, and Aberu, 2022). Credit constitutes the power or key that unlocks latent, talent, abilities, visions and opportunities which in turn acts as the mover of economic development. Credit enables the entrepreneur to train the right caliber of manpower, attract skilled ones where possible and provides them with a conducive environment for optimum performance , adoption of innovations leading to increased productivity and improves efficiency. Credit sources may be categorized into formal and informal (Toriola *et al.*, 2022; Muhammad, 2016).

Economic efficiency requires producing entrepreneurs to use resources in ways to attain the highest possible output given available inputs by using the lowest cost or attaining a maximum revenue through resource combinations based on the relative input prices. An increase in Economic efficiency improves livelihood through food availability, opening markets for higher farm income and encourages trade among value chain actors towards the growth and sustainable development of the economy (Dogba, 2020). According to Popoola *et al.* (2015), cocoa productivity levels can be enhanced by improving efficiency. The older the cocoa trees, the lower the efficiency. Increase in cocoa production in Nigeria has only been achieved by increasing land area and not increasing yield and efficiency. In addition, the lack of funds from the government to young cocoa entrepreneurs reduces the production of cocoa in Nigeria. These challenges have prevented the country from meeting the target set by the International Cocoa Organization (ICCO), and have affected productivity and efficiency (Eze, 2018). Its from these backdrop that the study seeks to examine Effect of Credit Use on the Economic Efficiency of Cocoa Seeds Processing and Seedlings Producing Entrepreneurs in South East-Nigeria.

## Methodology

This study was conducted in South-east Nigeria. The South-east zone comprises five states namely: Abia, Anambra, Ebonyi, Enugu and Imo States. The states are within the South-east rainforest zone of Nigeria. The area has a population of 21,955,334 and this comprise of Abia State 3,727,347 people, Imo State 5,408,756 people, Anambra State 5,527,809 people, Enugu state 4,411,119 people while Ebonyi State has 2,880,303 people (NPC, 2019). Imo and

Anambra are the most populous states of the zone and have high concentration of economic activities. The zone is located on latitudes 5006'N to 6034'N of the Equator and longitudes 6038'E and 8008'E of the Greenwich (Prime) Meridian. The location of the zone within the tropical rain forest belt gives it the ecological essentials for production of a wide range of tropical agricultural products such as cocoa, rice, yam, oil palm, maize, cassava and vegetables. The population of the study consisted of all cocoa seeds processing and seedlings producing entrepreneurs in Abia state, Imo State and Ebonyi State. Multi-stage and purposive sampling technique was employed in the selection of cocoa seed processing and seedlings producing entrepreneurs in the study. Firstly, three States out of the five States in Southeast Nigeria was purposively selected. The selected States are Abia, Imo and Ebonyi State. These states was chosen based on their high-level activities on cocoa seed processing and seedlings producing activities. Secondly, two agricultural zones per state was randomly selected based on their intensity on cocoa seed processing and seedlings producing activities. Thirdly, two Local government areas was randomly selected from each of the agricultural zone. In the fourth stage, three communities was selected randomly from each Local Government Area giving a total of 36 communities. Finally, five entrepreneurs was randomly selected from the entire thirty six (36) communities making it a total of 180 respondents for this study. Primary data was used in this investigation. The data for this study was acquired by the administration of a questionnaire, observation and an oral interview. The instrument was validated prior to delivery, and item statements were checked to ensure that the respondents addressed the study objective, questions, and the appropriateness of the constructs employed in the questionnaire. The study's data was analyzed using descriptive statistics and Z- Test.

## **Results and Discussion**

### **Categories of credit use by cocoa seeds processing and cocoa seedlings entrepreneurs**

As shown in the Table 1, majority (55.56%) of cocoa seed processing and cocoa seedlings producing entrepreneurs (accounting for about 100 entrepreneurs) used the informal credit while the remaining (44.44%) cocoa seed processing and cocoa seedlings producing entrepreneurs (accounting for about 80 entrepreneurs) used the formal credit. The result is in line with the findings of John and Charlse (2015), who reported that majority ( 87.77%) of credit users used informal credit source while (12.23%) of credit users used formal credit source. This could be as a result of lack of collateral and delay in loan approval/ disbursement from the formal credit sources.

### **Z-test analysis of difference seedlings and seeds entrepreneurs using formal and informal credit sources**

Findings in Table 2 showed a mean seeds processing formal credit users and informal credit users to be 0.00408 and 0.00446 respectively, while seedling producing formal and informal credit users to be 0.02727 and 0.07227 respectively. The result therefore entails that there is a significant difference in the mean seeds processing formal credit users and informal credit users, also in the mean seedlings producing formal and informal credit users.

Z-test analysis of difference in mean seeds processing entrepreneurs using formal and informal is statistically significant at 1% level implying credit use had an effect on economic efficiency of seeds processing entrepreneurs. While Z-test analysis of difference in mean seedlings producing entrepreneurs using formal and informal is not statistically significant implying credit use had no an effect on economic efficiency of seedlings producing entrepreneurs. This probably may be due seedlings production do not require much start- up capital.

## Conclusion

Cocoa is one of the most important cash crops that play a vital role in uplifting the country's economy. Cocoa contributes significantly to rural employment, foreign exchange earnings and agriculture's Gross Domestic Product (GDP). Credit increases the output of an enterprise significantly, hence help the producing entrepreneurs towards accumulating wealth to invest in production. Formal credit is needed by entrepreneurs in order to invest more thereby increasing productivity.

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**Table 1: Categories of credit use by cocoa seeds processing and cocoa seedlings entrepreneurs**

Credit use	Frequency	Percentage
Formal	80	44.44
Informal	100	55.56
<b>Total</b>	<b>180</b>	<b>100</b>

**Source: Field survey, 2022****Table 2: Paired sample statistic**

	Mean	N	Std. Deviation	Std.Error Mean
Seeds Processing formal	.6488	60	.03160	.00408
Seeds Processing informal	.6071	60	.03455	.00446
Seedlings producing formal	.7588	60	.21121	.02727
Seeds producing informal	.8494	60	.55978	.07227

**Source: Field survey, 2022****Table 3: Z-test analysis of difference seedlings and seeds entrepreneurs using formal and informal credit sources**

	Mean	Std. Deviation	Std. Error Mean	T	Df	Sig.
Seeds form and infor	.04168	.04661	.00602	6.928	59	.000
Seedlings form and infor	-.09062	.62554	.08076	-1.122	59	.266

**Source: Field survey, 2022**