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Employment Opportunities in the Agricultural Value Chain: The Role of the Home-Grown School Feeding Policy in Cross River State

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Abstract
The Home-Grown School Feeding Policy (HGSFP) in Nigeria is designed to improve school enrollment and nutrition while promoting economic growth within the agricultural sector. This study examines the extent to which the HGSFP has influenced employment opportunities in the agricultural value chain, focusing on its impact on local farmers and indirect employment in agro-processing and distribution. Guided by the Theory of Change (ToC), the study employs a descriptive survey research design, sampling 394 respondents using multi-stage sampling techniques. Quantitative data were analyzed through regression and correlation analysis, while qualitative responses were thematically examined. Findings reveal that the HGSFP has significantly increased the number of local farmers, with an R-value of 0.526 and an R-square of 0.277, indicating a positive correlation. Additionally, Pearson's correlation analysis ($r = 0.232$, $p < 0.01$) confirms a significant relationship between the HGSFP and indirect employment in agro-processing and distribution. The study concludes that the HGSFP is a critical intervention for employment generation and agricultural value chain development. It recommends infrastructure improvements, better financial support, and enhanced logistics to maximize the program's impact on economic development and food security in Cross River State.

Keywords: *Home-Grown School Feeding Policy, Employment Generation, Agricultural Value Chain, Agro-Processing*

Introduction

The persistent challenge of poverty and its alleviation remains at the forefront of global development discourse. Governments, international organizations, and policymakers continue to devise innovative strategies to combat poverty and improve socio-economic conditions, particularly in low- and middle-income countries. One such strategy that has gained significant attention is the Home-Grown School Feeding Programme (HGSFP), which aims to enhance local agricultural production, strengthen local economies, and generate employment opportunities. The initiative is aligned with the Sustainable Development Goals (SDGs), specifically SDG 1 (No Poverty) and SDG 2 (Zero Hunger), emphasising its role in fostering inclusive growth and food security (World Food Programme, 2018[a&b]). The impetus for such programs gained momentum following the global economic crises of 2008, which led to an increase in extreme poverty. Governments worldwide began prioritizing policies that addressed socio-economic vulnerabilities, particularly those affecting food security and employment (Strasser-King, Augustine, Adobea & Issaka, 2023). Across Africa, several countries—including Kenya, Ghana, Mali, Malawi, and Niger-have embraced home-grown school feeding programs as part of the Comprehensive Africa Agriculture Development Programme (CAADP). These programs aim to create sustainable markets for smallholder farmers while addressing hunger and malnutrition among school children (Drake, Woolnough, Burbano & Bundy, 2016; Masset & Gelli, 2013; Alderman & Bundy, 2012).

In Nigeria, the Home-Grown School Feeding Programme operates as a critical component of the National Social Investment Programme (NSIP). Implemented in partnership with various stakeholders such as the Imperial College Partnership for Child Development, the Bill and Melinda Gates Foundation, and the World Bank Group, the HGSFP plays a pivotal role in promoting agricultural development and educational outcomes (NHGSFP, 2016; Okah et al.,

2023). The program not only boosts school enrollment and retention but also creates employment opportunities for local farmers, caterers, and agro-processing workers. Studies indicate that school feeding programs contribute significantly to smallholder farmers' household food security, underscoring the importance of scaling up these interventions to enhance economic resilience (Mohammed et al., 2023). Social investment programs in Nigeria represent a comprehensive effort to tackle socio-economic disparities by fostering inclusive growth and sustainable livelihoods. The NSIP encompasses various initiatives, including the Conditional Cash Transfer (CCT), the N-Power program, and the Government Enterprise and Empowerment Programme (GEEP). Within this framework, the HGSFP directly supports smallholder farmers by integrating them into the supply chain for school meals. This approach not only enhances agricultural productivity but also creates indirect employment opportunities in agro-processing, food distribution, and catering services (Arejiogbe et al., 2023; Opuala-Charles & Oshilike, 2023).

The impact of the Home-Grown School Feeding Programme extends beyond immediate food security concerns. Through the use of locally produced agricultural goods, the initiative boosts rural economies and fortifies community resilience. The engagement of women-led catering businesses and agricultural cooperatives further underscores its role in promoting gender-inclusive economic growth (Barnabas et al., 2023). Additionally, research suggests that such initiatives contribute to reducing school absenteeism, improving child nutrition, and enhancing educational performance (Orighoye, Apekey & Maynard, 2023).

Globally, school feeding programs have been recognized as an essential intervention for addressing hunger, malnutrition, and educational disparities. According to the United Nations Hunger Task Force (UNHTF), these programs serve as a critical mechanism for improving school attendance, enhancing cognitive development, and supporting local agricultural production (Dennis et al., 2021). Studies indicate that approximately 60 million children attend school hungry each day, with Africa accounting for a significant proportion of this population (Adekunle & Ogbogu, 2016). In response, Nigeria's HGSFP has been instrumental in providing daily meals to primary school children, thereby reducing hunger and fostering long-term educational and economic benefits (Maitafsir & Kwari, 2022). The primary objective of Nigeria's Home-Grown School Feeding Programme is to reduce vulnerability, address child malnutrition, and create employment opportunities within the agricultural value chain. By sourcing food from local farmers and engaging community-based stakeholders, the program facilitates a multiplier effect that spurs economic activities at the grassroots level. Research highlights that well-designed school feeding programs can significantly improve food security, stimulate local economies, and promote sustainable agricultural practices (Okolo-Obasi & Uduji, 2022).

Karisa and Orodho (2014) assert that school feeding programs are a well-recognized social intervention that supports education, nutrition, and economic development. The Nigerian Home-Grown School Feeding Programme policy document emphasizes that the initiative is designed to enhance the livelihoods of smallholder farmers, create jobs in food processing and catering, and improve school nutrition outcomes (NHGSFP, 2016). The program's ability to integrate local agricultural production with social welfare initiatives highlights its potential as a model for sustainable development. At its core, the Home-Grown School Feeding Policy aims to strengthen the agricultural value chain by increasing the number of local farmers and creating indirect employment opportunities in agro-processing and distribution. This study seeks to explore the extent to which the program has contributed to employment generation in Cross River State.

Statement of the research problem

Agriculture remains a cornerstone of economic growth and development, particularly in developing nations like Nigeria. However, rural poverty and unemployment persist due to limited investment in agricultural value chains and inadequate policies supporting smallholder farmers. The Home-Grown School Feeding Programme (HGSFP) was introduced to stimulate local agricultural production, create employment opportunities, and alleviate poverty by integrating

smallholder farmers into the food supply system of public schools. Despite its potential, there is a paucity of empirical evidence on the extent to which this policy has contributed to employment generation in the agricultural sector in Cross River State. While the HGSFP aims to enhance the livelihoods of local farmers, there remains a gap in understanding the scale of its impact on increasing the number of local farmers actively engaged in food production. Furthermore, indirect employment opportunities within the agro-processing and food distribution sectors remain underexplored. The degree to which the programme has influenced agro-processing businesses, food vendors, and transporters in the state has not been comprehensively examined. This study, therefore, seeks to investigate the impact of the Home-Grown School Feeding Policy on employment creation in Cross River State's agricultural sector. Specifically, it will examine the extent to which the programme has contributed to the increase in the number of local farmers and the expansion of employment opportunities in agro-processing and distribution, ultimately assessing its role in promoting rural economic development.

Research questions

1. How has the Home-Grown School Feeding Policy influenced the increase in the number of local farmers in Cross River State?
2. In what ways has the Home-Grown School Feeding Policy contributed to indirect employment in agro-processing and distribution?

Research objectives

1. To examine the extent to which the Home-Grown School Feeding Policy has increased the number of local farmers in Cross River State.
2. To assess the impact of the Home-Grown School Feeding Policy on indirect employment creation in agro-processing and distribution.

Research hypotheses

1. H_0: The Home-Grown School Feeding Policy has not significantly increased the number of local farmers in Cross River State.
2. H_0: The Home-Grown School Feeding Policy has not significantly contributed to indirect employment in agro-processing and distribution.

Literature review

Conceptual literature

The Home-Grown School Feeding (HGSF) policy is a strategic intervention designed to improve child nutrition, increase school enrollment, and stimulate local agricultural economies. By sourcing food from local farmers, HGSF establishes a direct link between education and agriculture, fostering both food security and economic empowerment (Olutola & Aguh, 2023). Feeding plays a crucial role in children's cognitive development, making school feeding programs essential for improving learning outcomes (Okah et al., 2023). HGSF programs contribute to sustainable development by promoting local food production, reducing dependency on food imports, and strengthening community engagement (Barnabas et al., 2023). They enhance smallholder farmers' income, improve household food security, and create employment opportunities in food processing and distribution (Fungo, 2023). By integrating schools with local agricultural systems, HGSF reduces the environmental impact of long-distance food transportation while fostering resilience in food supply chains (Roque et al., 2022). Beyond nutrition, the policy serves as an economic empowerment tool, reducing poverty and strengthening local economies (Dausin, 2023). It aligns with broader socio-economic development goals, ensuring that schoolchildren receive nutritious meals while stimulating agricultural productivity. Overall, HGSF represents a sustainable approach to education, food security, and community development (Estender et al., 2022).

Home-grown school feeding policy and agricultural productivity

Local agriculture is crucial for rural economies, providing employment, food security, and sustainable development. The Home-Grown School Feeding (HGSF) program strengthens this sector by sourcing food from local farmers, ensuring a stable market and encouraging sustainable farming. This initiative enhances farmers' incomes, reduces rural poverty, and creates jobs in farming, processing, and transportation (Adebayo et al., 2019; Olofinbiyi & Eze, 2017). Studies indicate that HGSF programs improve food security and dietary diversity among smallholder farmers, benefiting both children and farming communities (Barnabas et al., 2023; Chaves et al., 2023). The policy stimulates agricultural productivity by increasing demand for diverse, nutritious crops while supporting supply chains (Singh & Fernandes, 2018). However, constraints such as cash flow and market risks can limit smallholder participation (Owusu et al., 2018). Empirical research, including Okolo-Obasi and Uduji (2022), highlights NHGSFP's role in rural job creation and economic growth. Linking school feeding initiatives with local agriculture fosters rural industrial integration, improves infrastructure, and strengthens rural economies (Abiola & Adefabi, 2022). Expanding these programs and addressing financial constraints will enhance agricultural productivity, food security, and long-term rural development, making HGSF a key driver of sustainable change.

Home-grown school feeding policy and increase in the number of local farmers

The Home-Grown School Feeding (HGSF) policy aims to enhance local agricultural productivity by sourcing food for school meals directly from local farmers. While several studies have examined the impact of HGSF on agricultural productivity and farmers' economic status, there is limited literature specifically quantifying the increase in the number of local farmers attributable to the policy. A study conducted in Adamawa State, Nigeria, (Harrison, 2024) revealed that the HGSF program significantly improved agricultural productivity among participating farmers, leading to enhanced economic conditions for food vendors associated with the program. Similarly, research in Mwala sub-county, Kenya (Okumu & Muhingi, 2021), indicated that the structured demand from HGSF positively influenced agricultural production among small-scale farmers. While these studies demonstrate positive impacts on existing farmers' productivity and economic well-being, they do not provide specific data on whether the HGSF policy has led to an increase in the number of local farmers. Therefore, this study assess the policy's effect on attracting new entrants into farming and expanding the local agricultural base.

Home-grown school feeding policy and employment

Home-grown school feeding programs (HGSFP) significantly impact direct and indirect employment. Direct employment includes cooks, kitchen staff, and administrative personnel responsible for daily operations, ensuring the program's effectiveness. Indirect employment arises from economic activities linked to the program, benefiting local farmers, food suppliers, and transport providers. The National Home-Grown School Feeding Programme (NHGSFP) in Nigeria creates jobs and stimulates rural economies (Barnabas et al., 2023). Studies in Tanzania and Brazil highlight the role of school feeding programs in community participation, food procurement, and employment generation (Roothaert et al., 2021; Estender et al., 2022). Local farmers supplying food experience increased demand, promoting sustainable agriculture (da Silva et al., 2023). Additionally, transportation, logistics, and food vending expand job opportunities (Palacios-Argüello et al., 2018). Programs like Brazil's PNAE integrate family farmers into institutional markets, enhancing local economies (Vieira et al., 2020). Policy frameworks supporting school feeding programs improve nutrition, reduce school absenteeism, and create employment across multiple sectors (Roque et al., 2022).

Theoretical framework

Theory of Change (ToC)

The Theory of Change (ToC) was developed by Carol Weiss in 1995 as a strategic framework to explain how and why change occurs within a program or intervention (Weiss, 1995). Weiss introduced the concept to help policymakers and program implementers map out the causal pathways between activities, short-term outcomes, and long-term impact. The ToC emphasizes the importance of identifying the underlying assumptions that influence the success of a program, ensuring that expected changes are well-grounded in reality (Vogel, 2012). At its core, the Theory of Change provides a structured approach to understanding how interventions lead to specific social, economic, or environmental transformations. It suggests that change happens through a step-by-step process, where short-term improvements create a foundation for broader and more sustainable impacts. The ideology behind ToC is that every policy or intervention should have a clear roadmap linking inputs (such as resources and activities) to desired outcomes (such as economic empowerment and improved livelihoods) (James, 2011). This makes ToC an essential tool in designing and evaluating development programs, ensuring that initiatives are both evidence-based and outcome-oriented.

In the context of this study, the Home-Grown School Feeding Programme (HGSFP) can be analyzed through the lens of the Theory of Change to understand its impact on local farmers and food vendors. The program is designed to create a sustainable market for smallholder farmers by sourcing food locally for school meals (Bundy et al., 2018). Using ToC, the study can trace how the steady demand for agricultural produce encourages farmers to increase their productivity, leading to higher incomes and improved economic stability. Additionally, the program's focus on local food vendors boosts employment opportunities and rural economic growth, ultimately enhancing food security and community well-being (Gelli et al., 2016). The ToC framework helps illustrate how HGSFP sets off a chain reaction of positive socio-economic changes that extend beyond just feeding schoolchildren.

Despite its strengths, the Theory of Change has some limitations. One major critique is its complexity, as the interconnected nature of change processes makes it difficult to predict every possible outcome (Stein & Valters, 2012). Additionally, the ToC relies heavily on assumptions, which, if inaccurate, may lead to unrealistic expectations about a program's success. Measuring long-term impacts can also be challenging, as social and economic transformations take years to fully materialize (Mayne, 2015). However, ToC remains a valuable framework due to its clear roadmap for change and its ability to support evidence-based planning. It provides a structured and adaptable approach to evaluating interventions like HGSFP, ensuring that policymakers can track progress and make necessary adjustments. By offering a detailed theory-driven analysis of cause-and-effect relationships, ToC helps explain how school feeding programs can drive agricultural productivity, economic empowerment, and sustainable development within rural communities.

Research Methodology

Research design: This study adopts a descriptive survey research design to evaluate the influence of the Home-Grown School Feeding Programme (HGSFP) on socio-economic well-being in Cross River State, Nigeria. This design enables data collection through questionnaires and interviews from direct and indirect beneficiaries. The descriptive survey method is suitable as it captures participants' opinions, perceptions, and experiences while allowing for inferential conclusions based on sample evidence.

Study area*:* The research focuses on Cross River State, located in southeastern Nigeria. The state is known for its diverse ecosystems, cultural richness, and economic significance. Despite its economic potential, socio-economic challenges persist, prompting government interventions such as the HGSFP. The study covers Ogoja (Northern Senatorial District), Yakurr

(Central Senatorial District), and Calabar South (Southern Senatorial District), representing the diverse demographics and geographical settings of the state.

Population of the study: The study population consists of 4,406,200 people (NPC, 2022), focusing on direct and indirect beneficiaries of the HGSFP, including farmers, food vendors, parents, school heads, and pupils.

Sample size and sampling technique*:* Using Taro Yamane's (1967) formula, a sample size of 400 respondents was determined. A multi-stage sampling technique was adopted, involving stratified, random, purposive, and snowball sampling methods. Cross River State was stratified into three senatorial districts. Within each district, local government areas (LGAs) were categorized into urban and rural areas. Six LGAs were randomly selected: Obudu and Yala (North), Etung and Yakurr (Central), and Biase and Calabar South (South). The study targeted 66 participants from each LGA, with an additional four respondents to meet the required sample size. Direct beneficiaries (school heads and teachers) were selected purposively, while indirect beneficiaries (farmers, vendors, parents) were identified through snowball sampling.

Sources and instruments of data collection: Primary data was collected using structured questionnaires and interview guides. Secondary data sources included school records, policy documents, journals, and government reports.

Method of data analysis: Quantitative data were analyzed using descriptive statistics, correlation, and regression analysis to determine relationships between HGSFP and socio-economic well-being. Qualitative data from interviews were analyzed thematically to capture participants' narratives and enrich findings.

Findings

Data presentation

This presents the data analysis and discussion of findings on "Employment Opportunities in the Agricultural Value Chain: The Role of the Home-Grown School Feeding Policy in Cross River State". The study examines the extent to which the policy influences the increase in the number of local farmers and indirect employment in agro-processing and distribution. The study collected 394 completed questionnaires out of the 400 distributed, which were used for analysis.

The responses from Table 1 indicate a strong agreement among respondents that the Home-Grown School Feeding Policy has positively influenced the number of local farmers in Cross River State. A significant majority (49.5%) strongly agreed and (36.8%) agreed that the policy has encouraged more farmers to participate in food production, highlighting its role in boosting agricultural engagement. Similarly, 44.9% of respondents strongly agreed and 44.4% agreed that the demand for locally sourced food products has increased due to the policy, suggesting its effectiveness in stimulating local markets. Furthermore, the policy's financial incentives appear to have had a moderate impact, as 32.5% strongly agreed and 34.5% agreed that these incentives motivated new farmers, while 20.3% and 12.7% disagreed and strongly disagreed, respectively. This indicates that while the policy has been beneficial, financial incentives may not be reaching all potential beneficiaries effectively. Additionally, a considerable percentage of respondents (46.4% strongly agreed and 39.3% agreed) acknowledged a noticeable expansion in agricultural activities among smallholder farmers, demonstrating that the policy has contributed to agricultural growth at the grassroots level. Lastly, regarding access to farming resources such as seeds, fertilizers, and training, 48.0% strongly agreed and 32.5% agreed, indicating that the policy has significantly improved resource availability for farmers. However, a small percentage (17.5% disagreed and 2.0% strongly disagreed) suggests that some farmers still face challenges in accessing these resources.

TABLE 1: Responses on the extent to which the Home-Grown School Feeding Policy has increased the number of local farmers in Cross River State N=394

S/N	ITEMS	SA	A	DA	SDA
1	The Home-Grown School Feeding Policy has encouraged more farmers to participate in food production.	195 (49.5%)	145 (36.8%)	39 (9.9%)	15 (3.8%)
2	The demand for locally sourced food products has increased due to the school feeding program.	117 (44.9%)	175 (44.4%)	38 (9.6%)	4 (1.0%)
3	The policy has provided financial incentives that have motivated new farmers to start farming.	128 (32.5%)	136 (34.5%)	80 (20.3%)	50 (12.7%)
4	There has been a noticeable expansion in agricultural activities among smallholder farmers due to the policy.	183 (46.4%)	155 (39.3%)	51 (12.9%)	5 (1.3%)
5	The Home-Grown School Feeding Policy has improved access to farming resources such as seeds, fertilizers, and training.	189 (48.0%)	128 (32.5%)	69 (17.5%)	8 (2.0%)

Source: Researchers' fieldwork, 2023

The findings presented in Table 2 illustrate the impact of the Home-Grown School Feeding Policy on indirect employment creation in agro-processing and distribution. The results suggest a significant positive influence, as a majority of respondents affirmed that the policy has contributed to job creation and economic expansion beyond primary farming activities. A substantial 89.1% of respondents (SA = 30.2%, A = 58.9%) agreed that the school feeding policy has facilitated the establishment of new agro-processing businesses in Cross River State. This indicates that the demand for food products generated by the policy has encouraged entrepreneurial ventures in food processing, thereby enhancing economic activities within the sector. Similarly, 88% of respondents (SA = 28.9%, A = 59.1%) acknowledged that the policy has led to an increase in job opportunities within food packaging and distribution, reinforcing its role in employment generation across various value chains. The rise in demand for locally processed food products such as garri, rice, plantain, and yam was also strongly supported, with 93.9% of respondents (SA = 28.7%, A = 65.2%) agreeing with this assertion. This suggests that the program has not only boosted agricultural production but has also created a stable market for processed food items, stimulating the local economy. Additionally, 86.8% of respondents (SA = 29.7%, A = 57.1%) affirmed that there has been a growing need for transport and logistics services to meet the distribution demands of the program. This highlights the policy's role in expanding opportunities in auxiliary sectors such as transportation and supply chain management. Furthermore, 87.8% of respondents (SA = 29.2%, A = 58.6%) agreed that the Home-Grown School Feeding Policy has created employment opportunities beyond farming, particularly for the youth. This finding underscores the policy's potential in addressing unemployment by engaging young people in agro-processing, packaging, and distribution services This suggests that the initiative has not only supported farmers but also created diverse job opportunities in related industries.

TABLE 2: Responses on the impact of the Home-Grown School Feeding Policy on indirect employment creation in agro-processing and distribution N=394

S/N	ITEMS	SA	A	DA	SDA
1	The school feeding policy has led to the establishment of new agro-processing businesses in the state.	119 (30.2%)	232 (58.9%)	36 (9.1%)	7 (1.8%)
2	There has been an increase in job opportunities in food packaging and distribution due to the policy.	114 (28.9%)	233 (59.1%)	35 (8.9%)	12 (3.0%)
3	The demand for locally processed food products like garri, rice, plantain, yam, etc, has risen as a result of the school feeding initiative.	113 (28.7%)	257 (65.2%)	18 (4.6%)	6 (1.5%)
4	More transport and logistics services have been required to meet the demands of the school feeding program.	117 (29.7%)	225 (57.1%)	44 (11.2%)	8 (2.0%)
5	The Home-Grown School Feeding Policy has expanded employment opportunities beyond farming for our youths.	115 (29.2%)	231 (58.6%)	40 (10.2%)	8 (2.0%)

Source: Researchers' fieldwork, 2023

The responses in Table 3 suggest that the Home-Grown School Feeding Policy has significantly contributed to the economic well-being of beneficiaries and their communities in

Cross River State. A majority of respondents (34.5% strongly agreed and 55.6% agreed) affirmed that the policy has positively impacted the economic well-being of families, indicating its role in improving financial stability. Similarly, 27.9% strongly agreed and 56.6% agreed that families with children benefiting from the program have experienced an improvement in their overall financial situation, demonstrating the direct financial relief provided by the initiative. Furthermore, the policy has created additional income-generating opportunities for local farmers and suppliers, as 27.2% strongly agreed and 58.6% agreed, reinforcing the economic benefits extending beyond direct beneficiaries. This is further supported by the fact that 31.5% strongly agreed and 57.9% agreed that families benefiting from the program have been able to allocate more resources to essential needs such as healthcare and education, illustrating its broader socio-economic impact. Additionally, a substantial proportion of respondents (37.1% strongly agreed and 52.8% agreed) recognized that the economic benefits of the policy extend beyond individual families to enhance the overall economic vibrancy of their communities. Personal experience with the policy was also notable, with 46.4% strongly agreeing and 39.3% agreeing that they had directly benefited from the program. Looking at the future implications, a strong majority (48.0% strongly agreed and 32.5% agreed) believed that the continuity of the Home-Grown School Feeding Policy would help many families escape poverty, emphasizing its long-term potential in addressing economic hardship. Lastly, even those who may not be direct beneficiaries acknowledged the policy's widespread impact, with 27.9% strongly agreeing and 62.2% agreeing that it has had an overall positive effect on the people.

TABLE 3:Responses on economic wellbeing of beneficiaries of the home-grown school feeding policy

N=394

S/N	ITEMS	SA	A	DA	SDA
1	The Home-Grown School Feeding Policy has positively contributed to the economic well-being of families in our community.	136 (34.5%)	219 (55.6%)	33 (8.4%)	6 (1.5%)
2	Families with children benefiting from the school feeding program have experienced an improvement in their overall financial situation.	110 (27.9%)	223 (56.6%)	51 (12.9%)	10 (2.5%)
3	The Home-Grown School Feeding Policy has created additional income-generating opportunities for local farmers and suppliers in our community.	107 (27.2%)	231 (58.6%)	41 (10.4%)	15 (3.8%)
4	Beneficiaries of the school feeding program have been able to allocate more resources to other essential needs, such as healthcare and education.	124 (31.5%)	228 (57.9%)	35 (8.9%)	7 (1.8%)
5	The economic impact of the Home-Grown School Feeding Policy extends beyond individual families to contribute to the overall economic vibrancy of our community.	146 (37.1%)	208 (52.8%)	33 (8.4%)	7 (1.8%)
6	I have benefited from the homegrown school feeding policy	138 (46.4%)	155 (39.3)	51 (12.6)	5 (1.3%)
7	The continuity of the homegrown school feeding policy will help many families come out of poverty	189 (48.0%)	128 (32.5%)	69 (17.5%)	8 (2.0%)
8	Whether I am a beneficiary or not, the homegrown school feeding policy has overall impact on the people	110 (27.9%)	245 (62.2%)	28 (7.1%)	11 (2.8%)

Source: Researchers' fieldwork, 2023

Data analysis (Test of hypotheses)

Hypothesis one

H_0: The Home-Grown School Feeding Policy has not significantly increased the number of local farmers in Cross River State.

The hypothesis aimed to examine whether the Home-Grown School Feeding Policy has significantly increased the number of local farmers in Cross River State. To test this, multiple linear regression analysis was conducted using responses from Tables 1 and 3. The results indicate that the mean number of local farmers was 16.09 with a standard deviation of 2.745,

while the Home-Grown School Feeding Policy had a mean of 25.59 with a standard deviation of 2.059. These values suggest moderate variability in responses. *Model Summary:* The regression model produced an R-value of 0.526, indicating a moderate positive correlation between the Home-Grown School Feeding Policy and the number of local farmers. The R-square value of 0.277 means that approximately 27.7% of the variation in the number of local farmers can be explained by the implementation of the Home-Grown School Feeding Policy. The adjusted R-square of 0.275 confirms that the model is a good fit for the data. *ANOVA Results:* The F-statistic of 149.962 with a p-value of 0.000 shows that the regression model is statistically significant. This means that the Home-Grown School Feeding Policy significantly influences the number of local farmers in Cross River State. *Regression Coefficients:* The constant (intercept) is -1.856 with a p-value of 0.208, which is not statistically significant. The coefficient for the Home-Grown School Feeding Policy is 0.701 (p = 0.000), meaning that for every unit increase in the Home-Grown School Feeding Policy, the number of local farmers increases by 0.701 units. The Beta value of 0.526 suggests a moderate effect size. Since the p-value (0.000) is less than 0.05, we reject the null hypothesis (H_0) and conclude that the Home-Grown School Feeding Policy has significantly increased the number of local farmers in Cross River State. This finding supports the argument that government intervention through school feeding programs can boost local agricultural activities, leading to increased farmer participation.

TABLE 4:Multiple linear regression analysis between home-grown school feeding policy and number of local farmers in Cross River State

Descriptive Statistics

	Mean	Std. Deviation	N
Number of local farmers	16.09	2.745	394
Home-grown school feeding policy	25.59	2.059	394

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	.526[a]	.277	.275	2.338	.277	149.962	1	392	.000

a. Predictors: (Constant), Home-grown school feeding policy
b. Dependent Variable: Number of local farmers

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	819.461	1	819.461	149.962	.000[b]
	Residual	2142.065	392	5.464		
	Total	2961.525	393			

a. Dependent Variable: Number of local farmers
b. Predictors: (Constant), Home-grown school feeding policy

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-1.856	1.470		-1.262	.208
	Home-grown school feeding policy	.701	.057	.526	12.246	.000

a. Dependent Variable: Number of local farmers

Hypothesis two

H_0: The Home-Grown School Feeding Policy has not significantly contributed to indirect employment in agro-processing and distribution.

Hypothesis two tested whether the Home-Grown School Feeding Policy has significantly contributed to indirect employment in agro-processing and distribution. To examine this relationship, a Pearson Product Moment Correlation analysis was conducted, as shown in Table

5. The results indicate a positive correlation between the Home-Grown School Feeding Policy and indirect employment in agro-processing and distribution, with a Pearson correlation coefficient of r = 0.232. This correlation is statistically significant at the 0.01 level (p = 0.000, N = 394), suggesting a meaningful association between the two variables. The mean value for indirect employment (15.82, SD = 1.422) and the mean value for the Home-Grown School Feeding Policy (25.59, SD = 2.059) indicate that respondents generally recognize the policy's contribution to employment generation in agro-processing and distribution. The positive correlation implies that as the implementation of the Home-Grown School Feeding Policy increases, there is a corresponding rise in indirect employment opportunities within related sectors such as food processing, packaging, and logistics. Given the statistical significance of the correlation, we reject the null hypothesis (H_0) and conclude that the Home-Grown School Feeding Policy has significantly contributed to indirect employment in agro-processing and distribution in Cross River State. This finding aligns with previous qualitative responses, reinforcing the argument that the policy plays a crucial role in stimulating economic activities beyond direct farming.

TABLE 5: Pearson product moment correlation coefficient between home-grown school feeding policy and indirect employment in agro-processing and distribution

Descriptive Statistics

	Mean	Std. Deviation	N
Indirect employment	15.82	1.422	394
Home-grown school feeding policy	25.59	2.059	394

Correlations

		Indirect employment	Home-grown school feeding policy
Indirect employment	Pearson Correlation	1	.232**
	Sig. (2-tailed)		.000
	N	394	394
Home-grown school feeding policy	Pearson Correlation	.232**	1
	Sig. (2-tailed)	.000	
	N	394	394

**. Correlation is significant at the 0.01 level (2-tailed).

Discussion of findings

The multiple linear regression analysis for hypothesis one conducted to assess the impact of the Home-Grown School Feeding Policy on the number of local farmers in Cross River State reveals a significant positive relationship. The R-value of 0.526 indicates a moderate positive correlation, and the R-square value of 0.277 suggests that approximately 27.7% of the variation in the number of local farmers can be attributed to the implementation of the policy. The statistically significant F-statistic (149.962, $p < 0.05$) further supports the conclusion that the policy has a meaningful effect on increasing local farmer participation. These findings align with existing literature on the benefits of home-grown school feeding programs. For instance, a study by Okolo-Obasi and Uduji, (2022) evaluating Nigeria's National Home-Grown School Feeding Programme (NHGSFP) found that the initiative connects local farmers to the education sector by facilitating their access to the school feeding market, thereby promoting increased agricultural productivity and farmer participation. Similarly, research by the School Meal Coalition (2024) indicates that the school feeding programs can unlock local agricultural development and create more than 1,000 direct jobs per 100,000 children fed, highlighting the broader economic impact of integrating local agriculture with school feeding initiatives. Further supporting these findings, a study by the Food and Agriculture Organization (FAO) on home-grown school feeding programs in sub-Saharan Africa found that linking school meals to local food production boosts smallholder farmers' income and enhances agricultural supply chains (FAO, 2021). Additionally, a report by the World Food Programme (WFP) highlights that home-grown school feeding initiatives contribute to rural economies by increasing demand for locally sourced food, thereby

incentivizing more farmers to expand production (WFP, 2020). These studies align with the results observed in Cross River State, demonstrating that policies integrating school feeding with local agriculture have a measurable impact on increasing farmer participation, strengthening food systems, and economic growth. This finding also aligns with the qualitative data generated. Interview with respondents in Cross River State reported that:

> *"We've noticed that local farmers are more engaged and motivated to produce quality crops, as they have a guaranteed market for their produce through the school feeding program. We have also observed an increase in student engagement and interest in agriculture, as they learn more about where their food comes from. Incorporating educational activities related to farming and nutrition into the curriculum could further enrich the students' learning experience".* ***(KII with Primary School Teacher, Government Primary School, Mayne Avenue, Calabar South)***
>
> *"The crops we produce in this part of the country has a steady market. However, the school feeding programme has made it that the demands has increased. Also, it has put more work on us local farmers. So, if you have more lands, you can plant more and also make more money. Now we can earn good money from farming".* ***(KII with local farmer at Goldie, Calabar South)***
>
> *"Since the policy start, we farmers don dey work together pass before. We don form cooperatives to join our resources and share better farming tips. Dis group work don make am easier for us to supply better and more consistent quality produce to di schools. For instance, for our cooperative, we don organize training on how to rotate crops and keep soil healthy, wey don help all of us improve our farming skills. But, we still get some challenges wey we need to face. E no easy for small-scale farmers like us to get money to put for farm improvements. E dey good say we get market wey dey sure, but e hard to find money to invest for farm betterment before we start to see profit. E go help us well if we fit get access to loans wey no get plenty interest or grants wey go help us expand our farms and meet di high demand from di school feeding program."* ***(KII with Male local farmer, Yakurr)***

The analysis of Hypothesis Two reveals a statistically significant positive correlation ($r = 0.232$, $p < 0.01$) between the Home-Grown School Feeding Policy and indirect employment in agro-processing and distribution sectors in Cross River State. This suggests that the implementation of the policy is associated with an increase in employment opportunities within these sectors. This finding aligns with existing literature highlighting the broader economic impacts of home-grown school feeding programs. For instance, the Food and Agriculture Organization's Home-Grown School Feeding Resource Framework emphasizes that such programs can generate sustainable benefits along the value chain, including job creation in food delivery, preparation, and other related areas (FAO & WFP, 2018). Similarly, Harrison (2024) examined the impact of the Home-Grown School Feeding Programme on agricultural productivity and the economic status of food vendors in Adamawa State. Using a descriptive survey design, data were collected from 302 farmers and 302 food vendors through a structured questionnaire. Results showed a significant positive impact on both farmers' productivity (grand mean = 3.01) and food vendors' economic status thereby contributing to job creation in agro-processing and distribution. The study recommended that the federal government sustain the programme due to its benefits for agriculture and local economies. Moreover, research published by Barnabas et al. (2023) highlights that home-grown school feeding programs provide steady market opportunities for smallholder farmers, which in turn stimulates local economies and creates employment in processing and logistics sectors. This underscores the role of such policies in not only enhancing food security but also in fostering economic development through indirect employment generation. Thus, the significant positive correlation observed in this study is consistent with findings from other regions, suggesting that the Home-Grown School Feeding

Policy in Cross River State effectively contributes to indirect employment in agro-processing and distribution sectors. This reinforces the importance of integrating local agricultural production with school feeding programs to achieve broader socio-economic benefits. This finding also aligns with the qualitative data generated. Interview with respondents in Cross River State reported that:

> *"The program has opened up new income opportunities for local farmers and suppliers by providing a reliable market for their products. Farmers can plan their production better, knowing that there's a steady demand from schools, which leads to more stable income. Suppliers of other goods and services related to the program, like transport and packaging, have also benefited from the increased business activity." (**KII with primary school teacher, Obudu**)*
>
> *"The school feeding program has been a game-changer for us. It's not just about selling our produce; it's about having a consistent source of income. We've been able to expand our farms and invest in better farming practices, which has increased our yields and income. The program has also encouraged collaboration among farmers, leading to the formation of cooperatives that can supply larger quantities and negotiate better prices." (**KII with local farmer, Biase**)*
>
> *"Local suppliers have benefited greatly, as the program requires a continuous supply of fresh ingredients, leading to more income opportunities. The program has allowed us to expand our businesses and hire more staff to meet the demand from schools. There's also a growing demand for locally produced snacks and beverages for the schools, which opens up even more income opportunities for local entrepreneurs." (**KII with food vendor, Calabar South**)*

These findings, when viewed through the lens of the Theory of Change (ToC), highlight the structured pathways through which the Home-Grown School Feeding Policy (HGSFP) fosters economic transformation in Cross River State. ToC posits that sustainable change occurs through a series of interconnected steps, where short-term interventions lead to long-term systemic improvements (Weiss, 1995). In the context of HGSFP, the policy's emphasis on sourcing food locally creates a direct market for smallholder farmers, encouraging increased agricultural productivity and income generation (Bundy et al., 2018). This aligns with the core premise of ToC, which suggests that well-defined inputs—such as government funding and institutional support—trigger progressive outcomes, such as expanded farming activities and improved economic resilience within rural communities. As demand for locally produced food rises, more farmers are incentivized to participate, ultimately strengthening local agricultural value chains and enhancing food security (Gelli et al., 2016). Furthermore, ToC helps explain the role of HGSFP in generating indirect employment within agro-processing and distribution. The policy's structured approach fosters job creation by expanding the supply chain, necessitating labor in areas such as food storage, packaging, and logistics (Bulus et al., 2023). Through the predictable demand for locally sourced food, HGSFP contributes to economic diversification, providing employment opportunities beyond direct agricultural production. However, ToC also highlights the challenges in achieving sustainable change, as external factors—such as policy inconsistencies, inadequate infrastructure, and funding limitations—can disrupt intended outcomes (Stein & Valters, 2012). Despite these challenges, the ToC framework underscores the long-term transformative potential of HGSFP, demonstrating how strategic interventions in school feeding policies can drive agricultural productivity, employment generation, and overall socio-economic development.

Conclusion and recommendations

The findings of this study highlight the significant impact of the Home-Grown School Feeding Programme (HGSFP) on employment generation in Cross River State, particularly in the agricultural and agro-processing sectors. The study revealed that the HGSFP has effectively

increased the number of local farmers engaged in food production, thereby strengthening the agricultural value chain. Additionally, the program has contributed to indirect employment creation in food processing, catering, and distribution, further bolstering the rural economy. By integrating smallholder farmers into the supply chain for school meals, the initiative has facilitated economic opportunities for marginalized groups, including women-led businesses and rural farmers. However, challenges such as logistical inefficiencies, limited financial support, and infrastructure constraints remain barriers to the program's full implementation. Addressing these issues will be critical for maximizing the program's long-term benefits and ensuring sustainability. Thus, the Home-Grown School Feeding Programme has proven to be a vital social investment initiative that not only addresses food insecurity and malnutrition but also serves as a catalyst for economic development in Cross River State. While the program has demonstrated success in increasing employment opportunities and enhancing agricultural productivity, further policy refinements are necessary to strengthen its impact. Investments in infrastructure, improved logistics, and access to credit for smallholder farmers and food vendors will enhance the efficiency and sustainability of the initiative. Policymakers should leverage these findings to refine the HGSFP, ensuring its continued role in promoting rural economic resilience and inclusive development.

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