EFFECTS OF ENVIRONMENTAL FACTORS ON THE GROWTH OF RICE MILL PROCESSING COMPANIES IN NORTH CENTRAL NIGERIA.

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Abstract
This research aims to examine the effects of environmental factors, specifically access to finance and government support, on the growth of agribusinesses within the rice value chain in North Central Nigeria. The study adopts a cross-sectional survey research design, utilizing a census sampling approach due to the manageable size of the population. The population comprises 66 active agribusinesses in the rice value chain registered with the Corporate Affairs Commission (CAC) and operating for at least five years. Data is collected through a 5-point Likert scale structured questionnaire, and the analysis employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the hypotheses. The analysis reveals that both access to finance and government support have a positive and significant impact on the growth of agribusinesses. Specifically, access to finance facilitates investment and operational expansion, while government support enhances growth through policies and infrastructure development. In conclusion, the positive relationships identified underscore the critical role of financial and governmental interventions in promoting agribusiness growth in North Central Nigeria. It is recommended that financial institutions provide tailored credit facilities and that the government increases support through subsidies, infrastructure improvements, and capacity-building programs. These measures will enhance the operational efficiency and growth potential of agribusinesses in the region.
Keywords: Agribusinesses Growth, Rice Value Chain, Environmental factors, Government support, Access to finance.

INTRODUCTION

The global food crisis of 2007–2008, which saw food prices rise at their fastest rate in 30 years and spark food riots in some countries, brought attention to the significance of agriculture worldwide. Seeing that the food price crises are the consequence of neglected agricultural investment in many developing countries, these countries have since sought ways to increase agricultural investment (Beraznevaet al.,2013). However, for there to be considerable investment in agriculture, it has to be viewed as a business where activities with the production of wealth are in view. In light of this, though ingrained in tradition, subsistence farming limits productivity, income, and food security and has to be improved by shifting focus towards commercial agriculture. Like other African countries, Nigeria hopes to unlock its agricultural potential, create employment, attract investment, and diversify the economy by embracing agribusiness, which offers vast opportunities through modernised practices, advanced technology, business management and fostered entrepreneurship.

According to Buzzacchi(2023), agribusiness involves the application of management principles and practices to the production and marketing of agricultural commodities. Agribusiness ensures the consistent production of food on a large scale, meeting the dietary needs of populations locally and globally. It helps maintain food security by ensuring a stable food supply even in challenging conditions. Agribusiness makes significant contributions to national and global economies by creating jobs, generating revenue, and contributing to GDP. It encompasses a wide range of activities from farming to food processing, distribution, and retail, all of which stimulate economic growth. Agribusiness drives innovation and technology adoption in agriculture, leading to increased productivity, efficiency, and sustainability. Modern farming techniques, machinery, and biotechnology advancements improve yields and reduce environmental impact (Cancino& Paz, 2020). Agribusiness improves supply chain efficiency by streamlining production, distribution, and logistics processes. This ensures that agricultural products reach consumers in a timely manner, reducing wastage, spoilage, and transportation costs along the supply chain (Casamattta, 2021). For this study, Agribusiness refers to the interconnected activities of producing, processing, manufacturing, and distributing agricultural products and services (Sexton, 2021).

The rice value chain plays a vital role in the agricultural sector of the north central States in Nigeria. As the country's leading rice-producing state, understanding the determinants of growth in the rice value chain is crucial for sustainable development and economic prosperity (Angya, 2018). Studies, such as those by Seck et al. 2013 predict that by 2035 Nigerians will more than double their rice consumption compared to 2010, this opens up a huge opportunity for the rice value chain. According to Tinsley (2012), agribusinesses in the rice value chain (RVC) are comprised of the producers which are the farmers and support services, processors who parboil and mill etc. and marketing which include Local assemblers and aggregators. It also extends to the final consumers of rice.

Rice mills are the most organized sector of the rice value chain in Nigeria due to their significant role in adding value and enhancing the quality of rice, which is essential for meeting market standards and consumer preferences (Syngenta Foundation, 2023). The profit efficiency of the rice milling industry, though variable, demonstrates the sector's potential for sustainable growth and investment, highlighting the critical role of effective management and capacity utilization in this segment of the value chain (Sowunmiet al. 2021).

Environmental factors significantly influence agribusiness operations, and one effective framework for analyzing these factors is PESTLE, which stands for Political, Economic, Social, Technological, Legal, and Environmental factors. Political factors include government policies, stability, and regulations that can impact business operations and profitability (Yüksel, 2012). Economic factors encompass economic growth, asses to finance, inflation rates, and exchange rates, which affect consumer purchasing power and business costs (Gupta, 2013). Social factors involve stakeholder collaboration, societal trends, demographics, and consumer behavior that shape market demand (Gillespie, 2007). Technological factors pertain to advancements and innovations that can lead to new opportunities or disrupt existing markets (Johnson et al., 2008). Legal factors include laws and regulations related to labor, health, and safety that businesses must comply with (Grewal & Levy, 2010). Lastly, environmental factors involve ecological and environmental aspects such as climate change and sustainability issues that can affect resource availability and operational practices (Worthington & Britton, 2015).

Agribusinesses are unique in their needs. Unlike conventional businesses, agribusiness faces distinctive factors influencing its growth trajectory. A lot of research has been done to identify the effects of environmental factors of other business types from multi-nationals to SME using proxies that might not quite suit the agribusiness model due to its peculiarities. Issues like seasonality of products and the fact that production is dependent on natural phenomena's make the management of agribusiness quite different from others (Ali et al. 2021). When envisaging growth in agribusiness, Government support and asses to finance plays a vital role in promoting the growth of agribusiness.

Rosenbaum and Rubin (2023) defined government support as any financial or otherwise assistance provided by a government entity to individuals, businesses, or organizations within its jurisdiction. This support can take various forms, including grants, subsidies, tax breaks, loans, guarantees, and direct services. The primary aim of government support is typically to stimulate economic growth, address societal needs, promote specific industries or activities, or provide relief during times of crisis or hardship. Governments can establish favorable policies and regulations that promote a conducive business environment for agribusinesses (Raheem et al. 2021).

Access to finance is another critical variable, considering the capital-intensive nature of agricultural activities, ranging from land preparation to harvesting. Access to finance implies the removal of barriers and constraints that prevent individuals and businesses from accessing financial services, including geographical, regulatory, and informational barriers (Zilberman 2018).Feder (2016) argued that access to finance represents the ability of individuals and businesses to obtain timely and adequate financial resources at reasonable costs, enabling them to engage in productive economic activities and manage their financial risks.

Research Objectives

The main objective of this research work is to examine the effects of environmental factors on the growth of Rice Mill Processing companies in North Central Nigeria,while its specific objectives are to:

i. To assess the effect of access to finance on the growth of Rice mills in north central, Nigeria.
ii. To determine how government support affect the growth of Rice mills in north central, Nigeria.

LITERATURE REVIEW

Access to Finance

Muzari and Muvhunzi (2021) opined that access to finance encompasses the processes, mechanisms, and institutions that facilitate the flow of funds from savers to borrowers, ensuring that financial resources are efficiently allocated and utilized to promote economic growth and development. Access to finance signifies the presence of inclusive financial systems that provide affordable and appropriate financial services to all segments of the population, regardless of their income level or social status. Raji and Adeoti(2018) argued that finance encompasses the policies, regulations, and financial infrastructure that facilitate the provision of financial services to individuals and enterprises, promoting financial inclusion, economic growth, and poverty reduction. Access to finance also refers to the availability of financial services, products, and tools that enable individuals and enterprises to save, invest, borrow, and manage their finances effectively.

Waller (2018) referred to access to finance as the availability of risk-sharing mechanisms, such as insurance and microcredit that enable individuals and businesses to manage financial risks and cope with unexpected events. Access to finance denotes the inclusivity and empowerment of women and disadvantaged groups, ensuring that they have equal opportunities to access and benefit from financial services, fostering gender equality and social inclusion. Access to finance encompasses the provision of financial services that are tailored to the specific needs and contexts of small and medium-sized enterprises, enabling them to grow, innovate, and contribute to economic development. Access to finance is closely linked to the concept of financial inclusion, which aims to provide access to appropriate and affordable financial services to all segments of society. Financial inclusion initiatives go beyond traditional banking services and encompass a range of formal and informal financial products, such as microfinance, mobile money, and community-based savings groups (Uematsu& Mishra, 2015).

Government Support

Peter et al, (2022) refers to government support as the various policies, initiatives, and financial assistance provided by the government to individuals, businesses, and sectors of the economy to promote economic growth, social welfare, and development. It ensures stability by providing a framework of laws, regulations, and policies that foster predictability and consistency in economic and social environments. This stability creates an environment where businesses can thrive and individuals can plan for the future with confidence. They further argued that governments often provide financial support in the form of grants, subsidies, and tax incentives to stimulate economic growth and innovation. By investing in infrastructure, research and development, and education, governments can catalyze private sector investment and create long-term prosperity (Mayuran& Li 2019).

Ketleyet al (2022) defined government support as the interventions, both financial and non-financial, undertaken by the government to foster economic stability, competitiveness, and social progress by providing assistance, protection, and guidance to individuals, enterprises, and communities. Government support signifies the actions and measures taken by the government to enhance the economic performance, productivity, and competitiveness of industries, regions, or specific groups through mechanisms such as subsidies, grants, and infrastructure development.

Growth of Agribusiness

Growth of Agribusiness refers to an overall Increase inthe company's size. Growth in agribusinesses is multifaceted and could be presented by several key elements such as Increasing Productivity and Yields. Diversifying product offerings and engaging in value-addition activities can also be viewed asagribusiness growth.Accessing new markets, both domestically and internationally, as well as technological adoption and innovation are other key aspects of agribusiness growth.

Profitability is a critical measure of financial performance and a key driver of growth for agribusinesses (Binayak2024). To drive profitability expansion, agribusinesses need to focus on improving operational efficiency, managing costs, and enhancing their product mix and pricing strategies. According to Cornelisse (2024) agribusinesses transform raw commodities into differentiated products, to expand their customer base and capture a greater share of the consumer market. Diversifying into value-added products, such as processed foods, specialty crops, and non-food items, can help agribusinesses increase their sales revenue and market sharewhich leads to growth. For this research, agribusiness growth is primarily viewed through the lens of increasing sales and market expansion.

Empirical Review

Access to Finance and Growth of Agribusiness

Samuel et al. (2019) investigated the effect of access to finance on growth in the Animal Care Services Konsult, Ogun State. A descriptive survey was employed for the study. A purposive sample technique was adopted to select 5 staff members each from the marketing department, quality control department, procurement department, human resources department, legal department and production department, totalling 60 participants as a sample size for the study. The instrument used in this study was a close-ended questionnaire which was developed by the researchers. The research data was statistically analysed by means of the Statistical Package for Social Science (SPSS). Data analysis was performed with the aid of mean, standard deviation and linear regression. The result shows that access to finance has a significant effect on growth in the Animal Care Services Konsult, Ogun State. Therefore, the study recommends that Animal Care Services Konsult and other production farms in Nigeria should explore ways to enhance access to finance. This can be achieved through partnerships with financial institutions, seeking investment opportunities, or applying for grants and loans specifically designed for businesses in the animal care industry. By securing adequate financial resources, the organization can invest in infrastructure, equipment, and human resources necessary for growth.

Joyce ObieroOuyaet al.,(2024) studied the effect of financial access on the performance of micro and small enterprises in Kisumu City, Kenya. The population comprises of 15,000 Micro and Small Enterprises owners, and a Sample size of 375 MSEs was arrived at by use of the Krejcie and Morgan formula and tabled to represent the whole population.Self- administered structured questionnaires and interview schedules were used to collect primary data which were distributed to the respondents in Kisumu County. The study therefore used Descriptive survey research design. Data collected were analyzed using Statistical Package for Social Sciences (SPSS) Version 27.The study finally concluded that financial access has highest effect on Growth and performance of MSEs as it was found to have p – value of $0.000 < 0.05$. A study in Kisumu City, Kenya cannot be effective in respect to decision making in the Agribusinessand Nigerian context, due to problems of external validity in knowledge.

Government support and Growth of Agribusiness

Amechi and Chineme (2021) examined the effect of government support on the growth of agribusiness companies in Benin City, Edo State, Nigeria. The population of the study is made up of four sampled Agribusiness in Benin City, Edo State. The research studied Green Garden Agro Tech, Yatt foods, Le Kingfishar and Prime Agro Seeds Plc. The researcher distributed 260 copies of the questionnaire to the respondents. Out of the 260 copies of the questionnaire distributed, 216 were properly filled and found relevant for the study. Likert-type items on a five-point scale and open-ended questions were employed to measure the perceptions of the respondents on the effects of government support on growth of Agribusiness Companies Nigeria. Data obtained are presented using the tabular format and analyzed using percentage method. From the analyzed data, chi-square statistical technique was used to test the

hypotheses. Result indicated that there is a strong positive correlation between strategies adapted by goverment to increase growth of agribusiness in Benin City, Edo State, Nigeria. The study concluded that the strategies implemented to foster the growth of agribusiness in Benin City, Edo State, are positively correlated with increased growth. The study recommended that the government continues and possibly strengthens its support for agribusiness companies. This support may include financial incentives, infrastructure development, policy reforms, and capacity building programs. The study alsoencourage collaboration among agribusiness companies, government agencies, research institutions, and other stakeholders. Collaborative efforts can lead to the sharing of knowledge, resources, and best practices, thereby fostering sustainable growth in the sector.

Okwuise et al (2019) conducted a study on how government support affects the growth of Agribusiness in Nairobi, Kenya. The study, anchored on the Selye stress theory, and adopted the survey research design. The study population consists of management staff of six selected Agribusiness in Nairobi, Kenya. A sample size of 276 was used for the study. The study's findings showed that while financial assistance and policy and regulatory framework had significant negative effects on affects the growth of Agribusiness in Nairobi, Kenya, infrastructure development and research and development had a significant positive effect. The study comes to the conclusion that it is evident that financial assistance and the policy and regulatory framework have a detrimental impact on the growth of agribusiness in Nairobi, Kenya, and recommends amongst others that policymakers and stakeholders should evaluate existing financial assistance programs, identify their shortcomings, and implement reforms to make them more effective and conducive to agribusiness growth corporate survival. Furthermore, Policymakers should engage with agribusiness stakeholders to identify barriers and streamline regulations that hinder growth.

Agricultural Value Chain Theory

This study used the agricultural value chain theory to underpin the work. The theory was propounded by Michael Porter in (1980) The theory emphasizes the importance of integrating small farmers into modern value chains to enable their prosperity and cooperation with larger companies. The processes involved in the production, processing, and delivery of agricultural products from producers to consumers. It encompasses the activities of various actors such as farmers, agribusiness companies, governments, and non-governmental organizations. Value chain analysis is a central tool in understanding the distribution of benefits among participants and identifying opportunities for upgrading the value chain. Institutions that focus on aggregating smallholders, empowering farmers, and creating market linkages play a crucial role in the successful transformation of agricultural sectors. Implementing a well-structured value chain system can lead to cost reductions, increased productivity, and competitiveness of agricultural enterprises. The concept of value chain management is also applied to eco-innovation in agriculture, aiming to create value and promote sustainable development.

METHODOLOGY

The study adopts a survey research design. The research was design to illustrate a cross-sectional study that applies a minimal degree of interference of the researcher. The design allowed various method of data collection such as questionnaires and interviews. The population of the study will consist of all active agribusiness in rice value chain in North Central Nigeria for a minimum of five (5) years that are registered with the corporate affairs Commission (CAC). However, focus is on agribusiness in rice value chain. Based on the available data, there are 66 active rice mill processing companies operating in North Central Nigeria that meet the above criteria (See appendix 2 for complete list).

Because the population of the study is small, the study employed the use of census survey which permit that the entire population be use as sample size. As a result, the sample size is 66 agribusiness in rice value chain firms. According to Parker (2011) census sampling is appropriate when the population not extremely large to make sure everyone takes part in the study and produce a more representative outcome. Primary data isused for this study. Data wascollected using 5point Likert scale structured questionnaire. The questionnaires were administered to the respondents as sampled.For the validity of

the research instrument, the report as in PLS-SEM convergent and discriminant validity method is employed. The reliability of the instrument for the study was conducted to determine the consistency of the instrument used. Any instrument with a coefficient of 0.70 and above is consider valid and reliable. Thus, the instrument is deemed to be capable of producing same result under same condition and circumstance.The Partial Least Square Structural equation model (PLS-SEM) was used as model for regression analysis which was used to test the hypothesis to determine if there is a relationship between each of the independent variables and the dependent variable.

RESULTS AND DISCUSSIONS

Demographic Information

Table 1 provides an overview of the respondents' roles within the rice value chain in North Central Nigeria. The data reveals that the majority of respondents (46.3%) are engaged in marketing activities, including aggregation and wholesale. Producers, encompassing farmers and related services, represent 35.2% of the sample, while processors account for 18.5%. This distribution indicates that the rice value chain in the region is heavily skewed towards marketing, suggesting a potential emphasis on distribution and sales over production and processing. The relatively smaller proportion of processors may imply challenges in scaling processing capacities, which could affect the overall efficiency and profitability of the rice value chain.

Table 1: What part of the value chain do you belong?

Categories of Value Chain	Frequency	Percent
Producer (Farmers and other related services)	19	35.2
Processors	10	18.5
Marketers (Aggregators, wholesalers, etc)	25	46.3
Total	54	100

Measurement Model Analysis

66 active agribusiness in rice value chain firms operating in North Central Nigeria were given copy of the questionnaire to fill and return. However, 54 responded. Partial Least Square Structural equation model (PLS-SEM) with the aid of Smartpls software was used to analysis the data. During the data screening, to achieve the required threshold for all the measurement model some indicators were removed. Two indicators were removed for access to finance and government support while one indicator was removed for agribusiness growth. Figure 1 and 2 shows the initial and final measurement model.

Table 2. Convergent Validity

Construct	Indicator	Outer Loading >0.7	Cronbach's Alpha >0.7	Composite Reliability >0.7	AVE >0.5
Access to Finance	AOF1	0.889	0.883	0.927	0.809
	AOF2	0.899			
	AOF4	0.911			
Government Support	GS1	0.842	0.825	0.895	0.740
	GS3	0.871			
	GS4	0.868			
Agribusiness Growth	AG1	0.769	0.714	0.839	0.635
	AG2	0.835			
	AG4	0.786			

The measurement model was assessed using four key indicators: Outer Loadings, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE), as presented in Table 2.

Outer Loading: All indicators across the three constructs—Access to Finance, Government Support, and Agribusiness Growth—exceeded the threshold of 0.7, indicating strong individual item reliability. This suggests that the selected indicators are well-suited for measuring their respective constructs, enhancing the validity of the model.

Cronbach's Alpha: The Cronbach's Alpha values for Access to Finance (0.883), Government Support (0.825), and Agribusiness Growth (0.714) all surpass the recommended threshold of 0.7. This indicates a high level of internal consistency among the items within each construct, suggesting that the indicators reliably measure the same underlying concept.

Composite Reliability: Composite Reliability values for all constructs are above 0.7, with Access to Finance (0.927), Government Support (0.895), and Agribusiness Growth (0.839) showing strong reliability. This reinforces the consistency of the constructs, affirming that the indicators collectively provide a reliable measurement.

Average Variance Extracted (AVE): The AVE values for all constructs are above 0.5, meeting the criterion for convergent validity. Access to Finance (0.809), Government Support (0.740), and Agribusiness Growth (0.635) demonstrate that a substantial portion of the variance in the indicators is captured by the constructs, ensuring that the constructs are valid measures of the underlying variables.

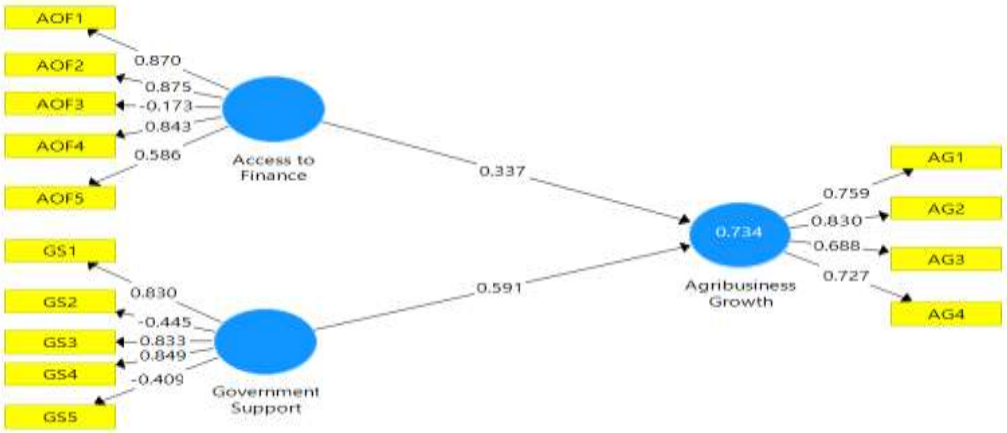

Figure 1: Initial Measurement Model

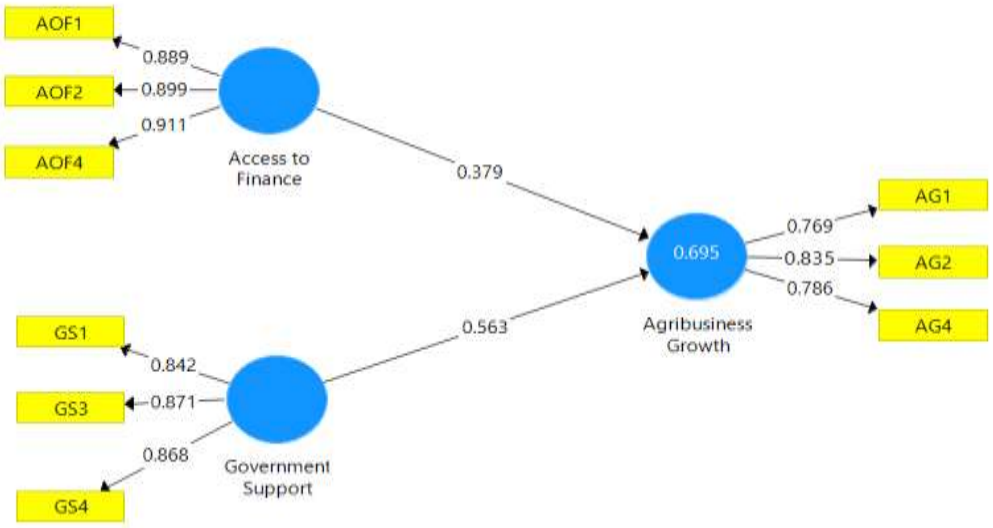

Figure 2: Final Measurement Model

The results show that the R-square value for Agribusiness Growth is 0.695 (see figure 2), indicating that 69.5% of the variance in agribusiness growth can be explained by the combined effects of access to

finance and government support. The adjusted R-square of 0.683, slightly lower than the R-square, accounts for the number of predictors in the model, confirming that the model is robust. The f-square values demonstrate the impact of each predictor, with Government Support (0.723) having a larger effect size compared to Access to Finance (0.328) on agribusiness growth. This implies that government support has a more substantial influence on agribusiness growth than access to finance.

Table 3 presents the Fornell-Larcker criterion results for discriminant validity. The diagonal values represent the square root of the AVE for each construct, which are higher than the correlations between the constructs. This confirms discriminant validity, indicating that each construct is distinct and not overly correlated with others in the model.

Table 3: Discriminant Validity Test (Fornell-Larcker Criterion)

Variables	Access to Finance	Agribusiness Growth	Government Support
Access to Finance	0.900		
Agribusiness Growth	0.689	0.797	
Government Support	0.551	0.771	0.860

Table 4. Cross loading Indicators

Indicators	Access to Finance	Agribusiness Growth	Government Support
AG1	0.416	0.769	0.592
AG2	0.622	0.835	0.654
AG4	0.591	0.786	0.597
AOF1	0.889	0.659	0.545
AOF2	0.899	0.632	0.525
AOF4	0.911	0.558	0.403
GS1	0.503	0.683	0.842
GS3	0.441	0.624	0.871
GS4	0.475	0.680	0.868

Table 4 shows the cross-loading indicators for discriminant validity. Each indicator loads more strongly on its associated construct than on any other construct, confirming that the indicators are distinct to their respective constructs. For instance, AG1 loads higher on Agribusiness Growth (0.769) than on Access to Finance (0.416) or Government Support (0.592). This demonstrates that the constructs are measuring different concepts, ensuring that discriminant validity is achieved in the model.

Structural Model Analysis

The results in Table 4 show the direct effect that confirmthat environmental factors (access to finance and government support) have a direct effect on growth of agribusinesses in the rice value chain in north central Nigeria.

Table 5: Hypotheses test

Hypothesis	Coefficient	T Statistics	P Values
Access to Finance -> Agribusiness Growth	0.379	4.800	0.000
Government Support -> Agribusiness Growth	0.563	9.038	0.000

Access to Finance: The coefficient is 0.379, with a T-statistic of 4.800 and a p-value of 0.000. This indicates a positive and statistically significant relationship, meaning that improved access to finance is associated with enhanced agribusiness growth. Furthermore, the coefficient is 0.563, with a T-statistic of 9.038 and a p-value of 0.000. This result also shows a positive andsignificant relationship, suggesting that greater government support significantly boosts the growth of agribusinesses.Overall, both access to

finance and government support play crucial roles in promoting agribusiness growth, with government support having a more substantial **impact.**

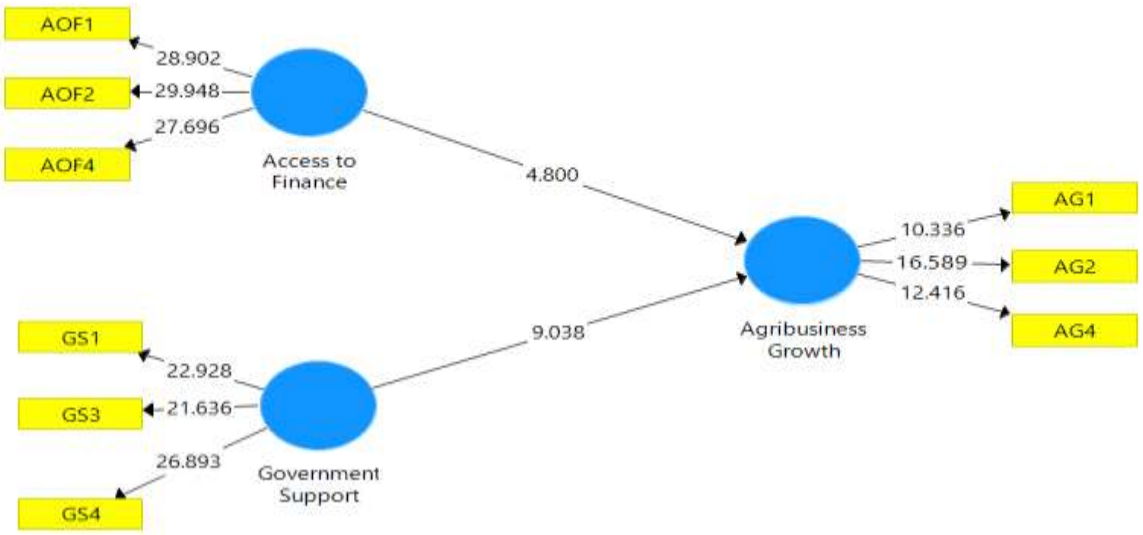

Figure 3: Structural Model

Discussion of Findings

The main objective of this research work is to examine the effects of environmental factors on the growth of Agribusinesses in the Rice Value Chain in North Central Nigeria. First, the positive and significant effect of access to finance on agribusiness growth in North Central Nigeria is justified by the critical role that financial resources play in business development. Access to finance enables agribusinesses to invest in modern technologies, expand their operations, and improve productivity, which are essential for scaling up and competing effectively in the market. In a region where agriculture is a major economic activity, financial support allows businesses to manage risks, purchase high-quality inputs, and adopt innovative practices that enhance efficiency. Additionally, access to finance helps agribusinesses to bridge cash flow gaps, ensuring stability and sustained growth. The significant impact observed in the study aligns with the broader understanding that financial inclusion and access to capital are key drivers of economic development, particularly in the agricultural sector.The findings of Samuel et al. (2019) align with the current study, as both demonstrate a positive and significant relationship between access to finance and the growth of agribusinesses. Samuel et al. found that better access to credit and favorable loan terms significantly enhance business performance, similar to the positive impact observed in North Central Nigeria. Joyce ObieroOuyaet al.,(2024) study also support this finding, showing a positive correlation between access to finance and the growth of Micro and Small Enterprises in Kisumu City, Kenya. Although the external validity of their findings may be limited in the Nigerian context, the positive relationship observed is consistent with the results of the current study.

Second, the positive and significant effect of government support on agribusiness growth in North Central Nigeria is justified by the essential role that government policies and interventions play in creating a conducive environment for business expansion. Government support, such as subsidies, infrastructure development, favorable policies, and extension services, directly impacts the operational efficiency and profitability of agribusinesses. In regions like North Central Nigeria, where agribusinesses face challenges such as inadequate infrastructure, high input costs, and market volatility, government initiatives can mitigate these barriers, enabling businesses to thrive. By providing financial incentives, improving access to markets, and facilitating technological adoption, government support helps agribusinesses to overcome obstacles that would otherwise hinder their growth. The findings of Amechi and Chineme (2021) align with the current study, both demonstrating a positive and significant impact of government support on the growth of agribusinesses. Amechi and Chineme observed that government strategies like financial incentives, infrastructure development, and policy reforms significantly boost agribusiness

growth in Benin City, Edo State. In contrast, Okwuise et al. (2019) found mixed results in Nairobi, Kenya, with financial assistance and regulatory frameworks having negative effects, while infrastructure development and research positively influenced agribusiness growth. Despite these differences, the positive aspects of government support observed in Okwuise et al. (2019) study are consistent with the current study's findings, suggesting that targeted government interventions can significantly enhance agribusiness growth.

CONCLUSION AND RECOMMENDATIONS

The study concludes that both access to finance and government support are critical drivers of agribusiness growth in North Central Nigeria. The positive and significant effects of these factors underscore their importance in fostering a thriving agricultural sector. Access to finance empowers agribusinesses to invest in technology, expand operations, and improve productivity, while government support through policies, infrastructure, and financial incentives creates an enabling environment for growth. These findings highlight the need for continued efforts to enhance financial accessibility and strengthen government interventions, as both are essential for the sustainable development and success of agribusinesses in the region.

Based on the finding that access to finance positively and significantly affects the growth of agribusiness in North Central Nigeria, it is recommended that financial institutions expand credit facilities tailored to the unique needs of agribusinesses, including flexible loan terms and lower interest rates. This will enable agribusinesses to invest in modern technologies and scale up operations, driving growth. Additionally, the government should collaborate with financial institutions to create guarantee schemes that reduce the risk associated with lending to agribusinesses. This will encourage banks to offer more loans to the agricultural sector, fostering economic development in Nigeria.

Given the significant positive effect of government support on agribusiness growth in North Central Nigeria, it is recommended that the government enhance its support by increasing subsidies for agricultural inputs and improving infrastructure, such as roads and irrigation systems. These measures will reduce production costs and improve market access, enabling agribusinesses to thrive. Additionally, the government should strengthen extension services and training programs to build the capacity of agribusiness owners and workers. By providing technical support and education, the government can help agribusinesses adopt best practices and innovations, thereby boosting productivity and contributing to the sector's overall growth in Nigeria.

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APPENDIX 1

Key: *SA = Strongly Agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly Disagree*

S/N	Access to Finance	SA	A	U	D	SD
1	We need access to financial services to facilitate investments and expansion within the rice agribusiness sector.					
2	Access to credit facilities can support the adoption of modern farming techniques in rice cultivation.					
3	Financial support enhancing the productivity and competitiveness of rice agribusinesses.					
4	Microfinance options for smallholder rice farmers are significant in improving their livelihoods and operational capacities.					
5	Access to financial resources promotes innovation and diversification within the rice value chain.					
6	The financial institutions in my area provide adequate support and services for small businesses and entrepreneurs.					
	Government Support					
7	Government policies and subsidies areeffective in promoting growth and sustainability within the rice agribusiness sector.					
8	Government support has positively impacted the competitiveness of rice agribusinesses in the value chain.					
9	Regulatory frameworks and incentives provided by the government hasfostered innovation within the rice value chain.					
10	Government-funded training programs has aided in enhancing skills and knowledge in the rice agribusiness sector?					
11	Overall,government support has impacted the growth and development of agribusinesses in the rice value chain positively.					
12	The government actively engages with and seeks input from the public and stakeholders when designing and implementing policies and programs.					
	Growth					
13	Improved infrastructure has positively contributed to the growth of your agribusiness in terms of increased production capacity and market reach?					
14	Access to finance directly impacted the growth trajectory of your agribusiness, particularly in terms of investment opportunities and operational expansion.					
15	Government support played a significant role in fostering the growth and sustainability of your agribusiness, particularly through policy incentives and funding programs.					
16	Integration of technology into your agribusiness operations influenced growth, for example, in terms of efficiency gains, cost savings, and product innovation.					
17	Stakeholder collaboration supported the overall growth and success of your agribusiness, particularly in terms of shared knowledge, resources, and market opportunities.					