MAAUN INTERNATIONAL JOURNAL OF POST GRADUATE STUDIES (MIJPS)
IAHERI
INSTITUTE OF AFRICA HIGHER EDUCATION RESEARCH AND INNOVATION
Maryam Abacha American University of Niger
Volume 1, Number 1, August, 2023
https://iaherijournal.maaun.edu.ng
ISSN (Paper): 2817-1673; ISSN (Online): 2817-1683

Influence of Small Arms Proliferation Control on Agricultural Productivity in Zamfara State-Nigeria

Aminu, A & Gwarzo A. A[1]
Email: aagezawa07@gmail.com
+2348033521934

[1]Department of International Relations, Maryam Abacha American University of Niger, Maradi, Niger Republic.

Abstract
The debate on agricultural growth have become a serious issue due to banditry, kidnapping, arm robbery and farmer and herdsmen crises going on in Zamfara State-Nigeria. Therefore, the objective of this study is to examine the influence of small arms control on agricultural productivity in Zamfara State, Nigeria. Hence, this study adopted the quantitative design through primary survey via questionnaire. However, the population of this study is 179,065. The study sample size of the study is 384 using Krejcie and Morgan (1970) sample size table. Therefore, the study administered 384 copies of the questionnaire to respondents and only 367 were duly returned while 17 were not return. Hence, the used 367 to analysis the data. The descriptive, correlation and Analysis of Variance were used to analyses the returned data through the Statistical Package for Social Sciences software (SPSS) 26.0. Thus, the finding shows that there is a significantly influence of innovation technologies on agricultural productivity in Zamfara State, Nigeria. And the second analysis reveals that there is significant influence of crisis management on agricultural productivity in Zamfara State, Nigeria. The study recommended that innovation technologies and crisis management should be given all necessary resources required for implementation.
Keywords: Small Arms Control; Innovation Technologies; Crisis Management; Agricultural Productivity

Introduction
The level of agricultural crises in European Union (EU) nations have increase drastically such as the food price crises, the energy prices crises, recession, the inflation, trade disputes, the disruptions of trade, as well as the scarcities has led a persistent and challenges to countries like Germany, Span, Greece, Ireland, Hungary, Latvia Poland, Austria, Lithuania, United State, Portugal, United Kingdom, Russia, Croatia, among others faces more poverties and economic crises than other continents (European Investment Bank (EIB's), 2022). The economic growth of this EU falls less than 3% in the year of 2022 (Bernards, 2022; EIB's, 2022). They argue that shock of the economic have causes many damages and fallout for many households, individual, banks, government, and the firms.

The development crises have indicated uncertainty regarding the risks facing European nations. Therefore, the new post risk many firms weakening by the Covid19 pandemic and Russia and Ukrain war (Frimpong, 2022; Uduji et al, 2019). EIB's (2022) shows that the proportion of the firms are at the risk of default that rises from the ten percent (10%) to seventy percent (17%) in this 2022. Many countries in the central and south Eastern Europe faces energy crises, poverty and food prices (Bernards, 2022; EIB's, 2022).

MAAUN INTERNATIONAL JOURNAL OF POST GRADUATE STUDIES (MIJPS)
IAHERI
INSTITUTE OF AFRICA HIGHER EDUCATION RESEARCH AND INNOVATION
Maryam Abacha American University of Niger
Volume 1, Number 1, August, 2023
https://iaherijournal.maaun.edu.ng
ISSN (Paper): 2817-1673; ISSN (Online): 2817-1683

The agricultural growth faces the challenges of exacerbating companies with vulnerability of the export reduction, poor profits, upward energy prices and the difficulties in funding due to the fact that banks and other financial institutions avoid risk (Frimpong, 2022; Uduji et al, 2019). Also, a lot of organization in EU has lost the proportion of eight percent (8%) to fifteen percent (15%) in 2022 (Anderu, 2021; Frimpong, 2022).

In Africa, the agricultural growth seeing as the survival of the developing nations but faces the arms proliferation that become danger to many life as well as to the properties which significantly lead to decline in production in Africa (Frimpong et al, 2022; Orngu, 2010). In Nigeria especially Zamfara State is the most affected state in the entire North West in recent time due to the challenges of banditry and kidnapping that has affected agricultural growth in Zamfara State (Omeje, Mba & Anyanwu, 2022; Wada, Musa, Musa, Musa, Abdullahi, BAkabe, & Lucero-Prisno, 2022).

Another challenges are the issues of intelligence agencies information sharing, new innovation technology such as drones, many communities crisis, inflation, food crisis, have drastically decline the development agricultural in Zamfara State, Nigeria (Omeje et al, 2022; Wada et al 2022; Frimpong, 2022; Vanderzalm et al, 2022; Tavenner, & Crane, 2022).

Prior literatures have shown that agricultural are the main source of economic drive and development, but since discovering of oil and gas in Nigeria in the early 70's, has resulted to agriculture declined drastically especially in Nigeria (Ohaka et al, 2013; Omeje et al, 2022; Wada et al 2022; Vanderzalm et al, 2022; Norton, 2020). The problems of poverty, banditry, corruption, communities' crisis, poor policies, kidnapping and among others has affected many investors to invest in the area of agricultural in Zamfara State, Nigeria (Olarewaju, 2021; Wang, Wang, Zhang, & Wang, 2021).

It has been argue by many previous findings (Ohaka et al, 2013; Uduji et al 2019; Omeje et al, 2022; Yang, & Gao, 2022; Tukur, Hamza, & Rabiu, 2021; Joaani, & Al-Douri, 2022; Wada et al, 2022; Singh, Sharma, Bhardwaj, Arya, Bhardwaj, & Khatri, 2021; Vanderzalm et al, 2022) shows that no countries economics can grow without resolving the problems of banditry, farmer and header conflicts, kidnapping, political crises, modern technologies, and among others **(**Nuhu, Itari & Ndagi, 2022; Omeje et al, 2022; Wada et al, 2022) which are the major challenges in Nigeria. Hence, this study examines the effect of small arms proliferation control on agricultural productivity in Zamfara State, Nigeria.

Purpose of the Study

The main purpose of the study is to examine the influence of small arms control on agricultural productivity in Zamfara State-Nigeria.

The specific purpose of the study are:

i. To assess the effect of innovation technology on agricultural growth in Zamfara State, Nigeria.
ii. To evaluate the effect of crisis management on agricultural growth in Zamfara State, Nigeria

Research Questions (Maximum of two)

The study raised the research questions as follows:

i. To what extent does innovation technology have on agricultural growth in Zamfara State, Nigeria?

MAAUN INTERNATIONAL JOURNAL OF POST GRADUATE STUDIES (MIJPS)
IAHERI
INSTITUTE OF AFRICA HIGHER EDUCATION RESEARCH AND INNOVATION
Maryam Abacha American University of Niger
Volume 1, Number 1, August, 2023
https://iaherijournal.maaun.edu.ng
ISSN (Paper): 2817-1673; ISSN (Online): 2817-1683

ii. To what effect does crisis management have on agricultural growth in Zamfara State, Nigeria?

Research Hypotheses (Maximum of two)

The study formulated the following hypotheses:

i. HO_1: Innovation technology no positive significant effect agricultural growth in Zamfara State, Nigeria

ii. HO_2: Crisis management has no positive significant effect agricultural growth in Zamfara State, Nigeria.

Methodology

This study adopted quantitative survey method. The reasons it was study adopted is due the fact that it has been considered as a very systematic that deal with many the findings (Dewi, Kamello, Lubis, & Ikhsan, 2022; Nuhu & Hussaini, 2017). The primary data were used in other to strengthening the validity and reliability of the study. In order to collect reliable and valid information, the researcher adopted primary source of data through questionnaire. The measurements/questions were adopted to achieve the purpose through five-point Likert scale.

The population of this study were the peoples (men, women, children and security personnel) in IDP Camps in Zamfara State covered 179,065 (Displacement Tracking Matrix, Nigeria, 2022). The study adopted Krejcie and Morgan (1970) to calculate the sample size which is 384. The study used the stratified (proportionate) sampling technique. This study adopted descriptive, correlation and ANOVA through the Statistical Package for Social Science (SPSS) 26.0 software for data analysis because it is the best instrument that can identify, compare, describe and reach a conclusion.

Results

The study administered 384 copies of questionnaire and all were duly completed returned. The table below show the presentation of the overall amount of questionnaires returned by the respondents.

Questionnaire administered	Questionnaire Returned	Valid Questionnaire Returned	Invalid Questionnaire
384	384	367	17

Source: Field Survey, 2022

The table 4.1 above indicates that 384 questionnaires distributed were all returned. This represents 100% of the questionnaires given back which is an adequate for the analysis. Hence, out of 384 questionnaires returned, 17 were invalid. Therefore, the final valid questionnaire for the analysis is 367. The result show that 101 of the respondents are of the male gender while 266 are female. This shows that a higher number of males participated are less than compared to female.

The result of the Hypothesis One show below

Recall: Innovation technology no positive significant effect agricultural growth in Zamfara State, Nigeria.

The study also hypothesized that innovation technology no positive significant effect agricultural growth in Zamfara State, Nigeria. The result rejected the null hypothesis (Ho) while accepted alternative hypothesis (H1) that innovation technology have positive significant effect on agricultural growth in Zamfara State, Nigeria. $r = .349$, $p = .000$.

MAAUN INTERNATIONAL JOURNAL OF POST GRADUATE STUDIES (MIJPS)
IAHERI
INSTITUTE OF AFRICA HIGHER EDUCATION RESEARCH AND INNOVATION
Maryam Abacha American University of Niger
Volume 1, Number 1, August, 2023
https://iaherijournal.maaun.edu.ng
ISSN (Paper): 2817-1673; ISSN (Online): 2817-1683

Correlation coefficient

	Innovation Technology	Agricultural Growth
Innovation Technology	1	.349***
Agricultural Growth	.349***	1

Correlation

		Innovation Technology	Agricultural Growth
Innovation Technology	The Pearson Correlation.	1	.349***
	Significant (2-tailed)		.000
	N	367	367
Agricultural Growth	The Pearson Correlation	.349***	1
	Significant (2-tailed)	.000	
	N	367	367

*** Correlation show the significant at the 0.01 (1%) level (2-tailed).

The result of the Hypothesis Two show below

Recall: Crisis management has no positive significant effect agricultural growth in Zamfara State, Nigeria.

The study also hypothesized that crisis management has no positive significant effect agricultural growth in Zamfara State, Nigeria. The result accepted the null hypothesis (Ho) and rejected alternative hypothesis (H1) that crisis management has positive significant on effect agricultural growth in Zamfara State, Nigeria. r =.362, p = .001.

Correlation coefficient

	Crisis Management	Agricultural Growth
Crisis Management	1	.332***
Agricultural Growth	.332***	1

Correlation

		Crisis Management	Agricultural Growth
Crisis Management	The Pearson Correlation	1	.332***
	Significant (2-tailed)		.001
	N	367	367
Agricultural Growth	The Pearson Correlation	.332***	1

MAAUN INTERNATIONAL JOURNAL OF POST GRADUATE STUDIES (MIJPS)
IAHERI
INSTITUTE OF AFRICA HIGHER EDUCATION RESEARCH AND INNOVATION
Maryam Abacha American University of Niger
Volume 1, Number 1, August, 2023
https://iaherijournal.maaun.edu.ng
ISSN (Paper): 2817-1673; ISSN (Online): 2817-1683

	Significant (2-tailed)	.001	
	N	367	367

*** Correlation show the significant at the 0.01 (1%) level (2-tailed).

The Analysis of Variance (ANOVA)

Model	Sum of Square	df	Mean Square (MS)	F	Sig
Regression	116.01	5	21.74	6.20	.000
Residual	138.32	76	5.72		
Total	**266.54**	**76**			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.432	.379	.123	3.22

a. Independent Variables (Proxies) (Constants)
b. Dependent Variable

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.189	.167	.167	3.675	.000
	Independent Variables (Proxies)	.197	.157	2.21	3.113	.001

a. Dependent Variable: Agricultural Productivity

Discussion

The finding of the study showed in hypothesis one, the result accepted the null hypothesis (Ho) and rejected alternative hypothesis (H1) that innovation technology positive significant effect agricultural growth in Zamfara State, Nigeria r =.349, p = .000. The result is in line with previous studies (Naumov, Sidorova, & Goncharov, 2022; Tamplin, 2022).

In hypothesis two, the result accepted the null hypothesis (Ho) and rejected alternative hypothesis (H1) that crisis management has no positive significant effect agricultural growth in Zamfara State, Nigeria. r =.332, p = .001. The result is in line with previous studies (Muringani, Fitjar, & Rodríguez-Pose, 2021; Norton, 2020).

Conclusion and Recommendations

Despite the availability of resource in Nigeria, there is still a deep problem plaguing the agricultural growth. The Nigerian Government as a sovereign authority faces the issues of proliferation of small arms and light weapons and continue to take appropriate mechanisms that would favour the disarmament and recovery of the light weapons, conflict management and prevention in the conflicting areas, possible measures that would stop the smuggling of such arms and securing the Nigerian borders.

MAAUN INTERNATIONAL JOURNAL OF POST GRADUATE STUDIES (MIJPS)
IAHERI
INSTITUTE OF AFRICA HIGHER EDUCATION RESEARCH AND INNOVATION
Maryam Abacha American University of Niger
Volume 1, Number 1, August, 2023
https://iaherijournal.maaun.edu.ng
ISSN (Paper): 2817-1673; ISSN (Online): 2817-1683

The study recommended that federal government and states in the North West region, Nigeria should implement the innovation technologies that will curtail the insecurities in the Zamfara State, Nigeria. Adequate personnel and enough working tools as well as modernized/ sophisticated equipment should be provided in the major border control posts. Provision and installation of modern technology / Radar control for surveillance that would cover a very long distance to curtail security risk. The Government need to pay more attention on intelligence gathering through engaging trained and highly experienced personnel in the border fronts. There is also urgent need for frequent and specialized security personnel training on modern skills and techniques to handle cross border crimes for the border security Agents.

The federal government and states in the North West region, Nigeria should always implement mechanisms for crisis management. The concept of security has gone beyond the level of military dimension therefore government should put more effort in considering diplomatic means of managing and resolving conflict. Non- governmental organization have a significant role to play in peace-building between the conflicting parties in Zamfara States. Therefore, they should be encourage and given the necessary support.

The study limited the scope to Zamfara State, Nigeria, hence future researchers should expand the similar study to other of the country. Therefore, for future studies, using other region that have affected with similar crisis outside Zamfara State, Nigeria can be observed and studied in order to determine the different findings.

References

Anderu, K. S. (2021). An empirical nexus between poverty and unemployment on economic growth. Jurnal Perspektif Pembiayaan dan Pembangunan Daerah, 9(1), 85-94.

Bernards, N. (2022). The World Bank, Agricultural Credit, and the Rise of Neoliberalism in Global Development. New Political Economy, 27(1), 116-131.

Dewi, A. T., Kamello, T., Lubis, M. Y., & Ikhsan, E. (2022). Comparison of Law Concerning the Concept of Privatization of State-Owned Enterprises in Civil Law and Common Law. In Second International Conference on Public Policy, Social Computing and Development (ICOPOSDEV 2021) (pp. 319-323). Atlantis Press.

European Investment Bank, (2022). EIB Global Report-The impact.

Frimpong, I. A., Wei, H., & Fan, Q. (2022). Assessing the Impact of Financial Support on Ghana's Economic Growth. Open Access Library Journal, 9(1), 1-18.

Joaani, S. M. S., & Al-Douri, B. F. (2022). An Economic and Measurement Study of the Impact of Government Support and some other variables on Wheat Crop Production in Iraq for the Period (1992-2019). Tikrit Journal for Agricultural Sciences, 21(4), 79-90.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and psychological measurement, 30(3), 607-610.

Muringani, J., Fitjar, R. D., & Rodríguez-Pose, A. (2021). Social capital and economic growth in the regions of Europe. Environment and Planning A: Economy and Space, 53(6), 1412-1434.

Naumov, A., Sidorova, D., & Goncharov, R. (2022). Farming on Arctic margins: Models of Economic Growth in northern regions of Russia, Europe and North America. Regional Science Policy & Practice, 14(1), 174-186.

Norton, G. W. (2020). Lessons from a Career in Economic Growth and Research Evaluation. Applied Economic Perspectives and Policy, 42(2), 151-167.

MAAUN INTERNATIONAL JOURNAL OF POST GRADUATE STUDIES (MIJPS)
IAHERI
INSTITUTE OF AFRICA HIGHER EDUCATION RESEARCH AND INNOVATION
Maryam Abacha American University of Niger
Volume 1, Number 1, August, 2023
https://iaherijournal.maaun.edu.ng
ISSN (Paper): 2817-1673; ISSN (Online): 2817-1683

Nuhu, M., & Hussani, S. M. (2017). Empirical study of the relationship between board of director mechanisms and perceived performance of listed firms in nigeria. Journal of Accounting and Finance in Emerging Economies, 3(2), 159-178.

Nuhu, M., Itari, T., & Ndagi, A. (2020). Effect of Career Fulfilment on Employee Performance in Federal Civil Service Commission, Abuja-Nigeria. Review of Politics and Public Policy in Emerging Economies, 2(2), 119-129.

Olarewaju, O. A. (2021). Insecurity in northern Nigeria: Implications for maternal and child health. Clinical Epidemiology and Global Health, 12, 100869.

Omeje, A. N., Mba, A. J., & Anyanwu, O. C. (2022). Impact of insecurity on enterprise development in Nigeria. Journal of Entrepreneurship in Emerging Economies, (ahead-of-print).

Singh, H., Sharma, A., Bhardwaj, S. K., Arya, S. K., Bhardwaj, N., & Khatri, M. (2021). Recent advances in the applications of nano-agrochemicals for sustainable Economic Growth. Environmental Science: Processes & Impacts, 23(2), 213-239.

Tamplin, T. (2022). What is economic growth? Finance strategists: true tamplin published author, public speaker, CEO of Updigital, and founder of finance strategists. https://learn.financestrategists.com/finance-terms/economic-growth/?gclid

Tavenner, K., & Crane, T. A. (2022). Hitting the target and missing the point? On the risks of measuring women's empowerment in Economic Growth. Agriculture and Human Values, 1-9.

Tukur, A., Hamza, K., & Rabiu, I. (2021). The Impact of Proliferation of Small Arms and Light Weapons on Nigeria's National Security: A Case Study of Kogi State (2015-2018). KIU Journal of Social Sciences, 6(4), 51-66.

Uduji, J. I., Okolo-Obasi, E. N., & Asongu, S. A. (2019). Corporate social responsibility and the role of rural women in sustainable Economic Growth in sub-Saharan Africa: Evidence from the Niger Delta in Nigeria. Sustainable Development, 27(4), 692-703.

Vanderzalm, J., Page, D., Dillon, P., Gonzalez, D., & Petheram, C. (2022). Assessing the costs of Managed Aquifer Recharge options to support Economic Growth. Agricultural Water Management, 263, 107437.

Wada, Y. H., Musa, S. S., Musa, S. K., Musa, M. K., Bakabe, T. I., Abdullahi, A. K., ... & Lucero-Prisno, D. E. (2022). COVID-19 and Insecurity in Northern Nigeria. Disaster Medicine and Public Health Preparedness, 1-3.

Wang, Z., Wang, J., Zhang, G., & Wang, Z. (2021). Evaluation of agricultural extension service for sustainable Economic Growth using a hybrid entropy and TOPSIS method. Sustainability, 13(1), 347.

Yang, M., & Gao, J. (2022). The Impact of Government Support on Family Farm-A Chain Mediation Model: Empirical Evidence from China. The Journal of Asian Finance, Economics and Business, 9(1), 325-332.