

The Defense Industry corporation for the advancement in research and development on military hardware and warfare of army in Nigeria

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ABSTRACT

The armed forces generally signify national pride, strength, valor, resilience, and power as they perform the tasks of securing land and border and protecting the citizenry from external aggressors. The attributes required for this range from patriotism, tact, discipline, and selflessness in service to the nation. However, the task also requires modernized military hardware and equipment to secure national interest, promote the rule of law, and fight insecurity, insurgency, and banditry. In a bid to address security challenges and the shortfall in the supply of basic raw materials for the manufacture of military hardware and armaments, the Defence Industries Corporation of Nigeria (DICON) has partnered with the Raw Materials Research and Development Council for the supply of basic raw materials to meet the growing needs of the military. A survey methodology has been employed in this study to assess the role of DICON in the promotion of defense research and development. The data collected were analyzed using a decision mean of 3.00. The findings reveal that the availability of principal raw materials such as square and angle bars as well as various forms of steel to DICON is insufficient for the fabrication and production of arms and ammunition and armored personal carriers. This paper recommends the need for a change of orientation through the revitalization of steel companies, which will provide an impetus to the economy, generate job opportunities, and contribute to the nation's gross domestic product.

Keywords : defense industry, bilateral corporation, research and development, military, Nigeria

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I. Introduction

Across the globe, military forces are critical for facilitating government policy, peacekeeping operations, securing the lives and property of its citizens against external forces, and maintaining law and order for the socio-economic development of the country (Chretien, 2007). Armed forces personnel include active duty military personnel in the army, air force, and navy; police forces including paramilitary forces such as the Nigerian Security and Civil Defence Corps; and other security agencies such as the Department of State Service, which is equipped with counter terrorism skills for the identification of improvised explosive devices, cordon search and rescue, information and intelligence gathering, patrols, combat in built-up areas, raids, and gadgets and equipment to support joint task forces operations deployed to various areas to counter-insurgency, terrorism, and banditry (Ellmer, 2021; Trading Economics, 2022). The Nigerian Army forms the largest constituent of the Nigerian Armed Forces, with 100,000 professional personnel (Global Security, 2019). The original elements of the Royal West African Frontier Force in Nigeria were formed in 1900. Trading Economics reports that armed forces personnel in Nigeria numbered 223,000 in 2019. Thus, there is a massive need for development to meet the growing security needs of the nation, and this has led to the exponential development of defense equipment products (DICON, 2022; Trading Economics, 2022). Owing to the importance of the need, this study seeks to investigate the role of the DICON in the advancement in research and development (R&D) on military hardware and warfare of the Nigerian Army with the following research questions.

Question 1: What are the identified challenges to DICON Research and Development in Nigeria?

Question 2: What are the effects of the bilateral cooperation and alliance with the Republic of Korea's Army on the advancement in the R&D efforts of DICON?

II. Nigerian military equipment: A background

The global arms industry requires large investment for production of weapons, armory, military hardware, automobiles, and other fighting equipment and technology. It is also involved in massive commercial trade with governments and non-government representatives as they

engage in research and manpower development related to military hardware (Habib, 2015; Stohl & Grillot, 2013).

According to Ellmer (2021), Nigeria is the largest importer of military equipment in sub-Saharan Africa. This is the result of the Nigerian government's activities in addressing the threats raised by the Boko Haram (BH) and Islamic State West Africa Province (ISWAP), militancy, and banditry in the northwestern region of the country (Ellmer, 2021). The Nigerian arms industry is being revitalized with the supply of adequate human and material resources to all DICON plants. This started since the inception of Air Vice Marshal Onyemaechi Osahor, Director General, Research and Development Bureau, and Maj. Gen. Victor Ezugwu, DG DICON, at the helm of the R&D efforts of DICON and the Nigerian forces. Arms-producing companies, also called defense contractors or military industries, produce arms mainly for the armed forces of a sovereign nation or other government agencies that are legally entitled to the possession and use of arms. Military products, such as guns, ammunition, missiles, military aircraft, vehicles, armored tanks, and gun boats, are traded (DICON, 2016).

The arms industry also provides other logistical and operational support (Stohl & Grillot, 2013). It has been estimated that over 1.5 trillion USD, which amounts to 2.7% of the global GDP spent on military expenditures worldwide each year. The Stockholm International Peace and Research Institute (SIPRI) revealed that arms sales skyrocketed with the top 100 largest arms-producing companies earning \$395 billion (2012) due to the estimated cost of production interest generated through international arms trade worldwide. Similarly, SIPRI, estimated that international transfers of major weapons between 2010 and 2014 was 16% higher than in the period from 2005 to 2009. The organization also reported in their survey chart that the five largest exporters of arms between 2010 and 2014 were the United States, Russia, China, Germany, and France. Meanwhile, the five nations with the largest import of arms during this period were India, Saudi Arabia, the United Arab Emirates (UAE), and Pakistan (SIPRI, 2014).

A study by Associated Press (2019) reported a compound annual growth rate of 6.55% in Nigeria's military expenditure with a corresponding increase in defense expenditure between 2015 (9.8%) and 2019 (26.6 %), making Nigeria 149th in the world for expenditure on security (Ellmer, 2021). However, in the fiscal year 2022, the Nigerian Ministry of Defence (2022) spent 1.5 billion on capital expenditure for military security operations; 1 trillion on defense operations and the procurement of military hardware, upgrade of utility vehicles, and arms and ammunition; and 201.033 million for construction and provision of defense equipment for armed forces personnel to strengthen the security sector (Omonobi, 2022)

III. Brief historical background on R&D in DICON

The success of any nation depends on the willingness of the government to allocate adequate personnel and resources for the promotion of economic growth and to prioritize the defense industry to meet current and prospective security needs (Kinsella, 2000). An under-developed defense industry may pose a great threat to international interests. Thus, developed countries, such as the United States, China, and Russia, provide massive funding for R&D of armaments, special suits to increase efficiency in military reconnaissance and operations, etc. (Gompert, Olikier & Timilsina, 2004).

In this situation, DICON is Nigeria's domestic industrial concern for the development of military hardware and equipment. DICON a state-run defense corporation operated by the Nigerian Armed Force responsible to produce defense equipment and civilian products (DICON, 2022). It was established on 1 August 1964 by the Act of Parliament Number 14 and revised as the Defence Industries Corporation of Nigeria Act, in Chapter 94 of the Laws of the Federation 2004. The establishment of the Corporation was based on an assessment of the nation's security needs (DICON, 2016). This assessment led to the collaboration with a West German manufacturing firm Fritz Werner to providing technical expertise and the setting up of the Ordinance Factory in Kaduna in 1964. The collaboration resulted in ensuring a production of 5000 units of BM 59 rifles, 18,000 units of SMG 12, 12,000,000 rounds of 7.62 mm $\times$ 51, and 4,000,000 rounds of 9 mm $\times$ 19 per annum, and also in the establishment of a special vehicle plant for refurbishing and upgrading tanks including the Scorpion light tanks, Steyr tracked armored personnel carriers (APCs), and MOWAG APCs.

Similarly, the corporation partnered with Poly-Technologies of China to increase its technical capabilities. In 2004, DICON successfully produced prototype medium range weapons including 60mm and 81mm mortars and the RPG-7, 7.62mm $\times$ 39 ammunition which is preferred the Security Services. This led to the current effort to develop and mass produce a Nigerian version of AK47, which uses the same 7.62mm $\times$ 39mm ammo. Also, the corporation signed an agreement on January 24, 2013, with an Israeli company, Marom Dolphin Nigeria Limited, that specializes in military and security textile products for the establishment of a factory that manufactures bulletproof vests, ballistic vests, and helmets and other military textiles for the armed forces and security agencies in the country (Global Security, 2015).

In a bid to ensure quality production of both civil and military hardware in the country, the Nigerian Army, DICON, and University of Ilorin (UNILORIN), jointly signed an MoU for the

development of a composite material for armor plating. This collaboration was aimed at involving indigenous professionals in the planning, design, and execution of projects to enhance national security and improve the status of the country's military personnel in discharging their duties (Nigeria Investment Promotion Commission, 2020). The partnership of DICON with Raw Materials Research and Development Council (RMRDC), Abuja and the DICON, National Metallurgical Development Centre, Jos, MoU was established to boost research and the production of indigenous military equipment, to strengthen the supply of basic raw materials for manufacturing, and integrating equipment development to reduce import costs for defense industries (DICON, 2016).

The vision of the corporation is aimed at guiding it to produce quality military and civil products. Their mission is to operate ordinance factories for the manufacture and supply of arms and ammunition as well as inspecting, testing, and recommending ordinance material intended for use by the armed forces and other security organizations while using the excess capacity to support the development of local industries to deal with Nigeria's security challenges, which have increased exponentially since the BH militant and ISWAP group stepped up its attacks within the country and along its borders (Godspower, 2015; Mbara, Ehiane, & Gopal, 2021). DICON collaborates with the Nigerian Army Command Engineering Depot, National Agency for Science and Engineering Infrastructure, several tertiary institutions, relevant research institutes, private and public organizations, and other defense-related industries among many others.

The corporation was built on a sound commercial footing and established an unmanned aerial vehicle workshop, DICON-SUR Corporate Wear Nigeria Limited, which is a collaborative effort at building the largest garment factory in Africa at the DICON ordinance factory to produce and constantly improve the quality of the arms and ammunition needs of the Nigerian Armed Forces and other security agencies. This should be in accordance with the defense, security, and foreign policies of Nigeria and in compliance with the best international standards to produce military items that will meet appropriate quality requirements to conserve foreign exchange (DICON, 2016).

Since the establishment of DICON, the corporation set up units and departments for the holistic promotion of R&D along with the establishment of a training school for training DICON staff in the production processes and the use of equipment available at the DICON Research and Development Centre, Research and Development departments in various arms of the Services, and at the Defense Headquarters, Abuja. The Centre has successfully completed several projects, including the RPG-7, 60mm and 81mm mortar tubes, and the production of

electroplated steel swords, target carriers, BMG tripods, and field kitchen for the Nigerian Army. DICON is structured with constituted authorities and boards that design and implement policy decisions and management to ensure proper implementation and promotion of the objectives of the corporation. The factory comprises of the following departments: Ordinance Factories, Research and Development Centre, a special vehicle plant, DICON Explosives Company Limited that produces explosives for civil use, and an ammunition filling plant to facilitate the production of high caliber ammunition for the Armed Forces (DICON, 2016). The corporation undertakes collaborative efforts with the defense sector in other countries such as China, Korea, and Pakistan for the use of local raw materials in the production of the 105mm gun, high caliber ammunition, APC, and other armored plated vehicles (DICON, 2016; Habib, 2015).

IV. OVERVIEW ON DICON PRODUCTS AND SERVICES

DICON has several achievements to its credit and makes important products for both military and civil usage within and across borders. The military products include rocket propelled grenade launcher, high powered pistol, general purpose machine gun, M36 hand grenade, and BMG Tripod. Other products include field kitchens and ammunition, such as 7.62mm × 51mm soft core (ball) cartridge, 7.62mm × 51mm blank bullet cartridge, 7.62mm × 65mm blank star cartridge, 9 × 19mm parabellum cartridge, APCs, and 9mm blank star (DICON, 2016). The corporation has also successfully developed the EZUGWU MRAP in honor of Gen (Figure 1). Ezugwu, DG DICON. The civil products include spare parts for gears and impellers, single barrel shot gun, and 12mm-bore shot gun cartridge for ammunition for security agencies.

The corporation produces maces and staffs of office for traditional institutions, ballot boxes, hand pumps, office and school furniture, and wind mills, among others. The Corporation has also harnessed its potential in the repair of assorted weapons for the Services and other security agencies in the country. To address growing security challenges, the corporation extends its cooperation and production collaborations with friendly and willing countries to leverage foreign technology, R&D, and defense capabilities. This points to the importance of DICON in the defense industry (DICON, 2016).



<Figure 1> EZUGWU MRAP Vehicle

Source: This image retrieved from <https://dicon.gov.ng/gallery/page/3/>.

V. BENEFITS OF COOPERATIVE RELATIONS OF NIGERIA AND REPUBLIC OF KOREA IN MILITARY AND DEFENSE

International defense cooperation and defense production has been on the agenda of military discourse for a very long time. However, defense cooperation and production in Africa has not been a success story for most countries (Andreoni & Tregenna, 2020) including Nigeria due to the obviously weak industrial base of most African countries, poor R&D culture, weak economy, and inadequate human resource and development of requisite capacity (DICON, 2017).

The Nigerian Army has established a collaboration with the Republic of Korea. This was recorded during the tenure of the former Chief of Army Staff Tukur Yusuf Buratai in his office, along Captain Shin Jae Sung, Defense Attaché (DA), Republic of Korea, during their delegation's visit of the Nigerian Navy. This was reiterated during the courtesy visit of defense industry officials and COAS to Korea for strategic bilateral collaboration (Abdulsalam, 2015; DICON, 2017; Nigerian Army, 2019). According to Haruna (2016), the Korean government's efforts to support the Nigerian military is evident through training programs organized to train its troops in the areas of counter-insurgency, military hardware, military education, technology capacity building, exchange programs, and courses for military officers to promote efficient combat strategies for tackling the security challenges in Nigeria and wiping out extremism in the country and the West African sub-region (Abdulkareem, 2016; Haruna, 2016; Ministry Of Defence, 2020; Embassy of the Republic of Korea to the Federal Republic of Nigeria, 2021:

Nwezeh & Olugbode, 2020).

VI. Data collection and methodology

To achieve the objective properly, a quantitative approach was used. The study adopted a survey methodology to collect data from officers and DICON personnel of Kaduna State in 2021. In this quantitative approach (a case study approach), detailed information was gathered from key stakeholders comprising of engineers and tactical officers. In addition, quantitative data were gathered from DICON personnel using a self-developed structured questionnaire. The researcher personally administered the questionnaire to the officers at DICON, Kaduna State. The researcher also used the time between the distribution and collection of questionnaires to personally visit DICON plants.

The target population included all serving officers and engineers of DICON, Kaduna State, numbering 437 as per the Audit Unit at DICON, Kaduna State. Due to the large number of the military at the facility, the Krejcie and Morgan's (1970) table for sample selection was adopted to select the sample size for the study. Based on the table, 212 respondents/officers were randomly selected, and they filled structured questionnaires based on availability, expertise, and experience. Hence, the researcher deemed it fit to be adopted as a technique in arriving at the sample size for this study.

$$s = \frac{X^2NP(1-P)}{d^2} + \frac{X^2P(1-P)}{d^2}$$

s = required sample size of the population

X^2 = table value of chi-square for one degree of freedom at the desired confidence level

N = population size

P = population proportion (assumed on 0.50)

D = degree of accuracy expressed as a proportion (0.05)

The respondents' biodata variables, gender, educational qualification, years of experience, age, and marital status were presented using simple descriptive statistics, such as frequency and percentage distributions. The following three sections consist of questions with Likert scale responses labelled strongly agree, agree, undecided, disagree, and strongly disagree (corresponding to points of 5, 4, 3, 2, and 1, respectively). The cumulative mean was computed for all the item means in each section compared with the standard/decision mean of 3.000 to

determine the cumulative agreement or disagreement to each of the two research objectives using SPSS Statistical Package 23rd edition.

VII. Results

7.1 Socio-demographic Information

Table 1 provided the demographic profile of gender, age, marital status, education, and working experience. Total of 143 representing 67.5% of the respondents were males, and the remaining 69 representing 32.5% were females, indicating that males are in the majority. Age of the respondents shows that 22 or 10.4% are between ages 21–30 years, 63 or 29.7% are between 31–40 years, 70 or 33.0% are between 41–50 years, and the rest 57 or 26.9% are between ages 51–60 years. In educational status, it shows that 15 or 7.1% of the respondents possess O Level qualifications, 75 or 35.4% possess NCE/OND, 96 or 45.3% possess BSC/HND, and the remaining 26 or 12.13% have postgraduate qualifications. And respondents shows that 41 or 19.3% are single, 69 or 32.5% are married, 24 or 19.8% are divorced, and 30 or 14.2 are separated. A total of 30 respondents or 14.2% chose to indicate their marital status as “other.” Total of 33 or 15.6% worked between 1–5 years, 90 or 42.5% had between 6–10 years of experience, 36 respondents or 17.0% had between 11–15 years of experience, and the rest (53 or 25.0%) had more than 16 years of experience.

<Table 1> Socio-demographic features of the study participants (N=212)

	Frequency	Percentage
Male	143	67.5
Female	69	32.5
Age		
21–30	22	10.4
31–40	63	29.7
41–50	70	33.0
51–60	57	26.9
Marital status		
Single	41	19.3
Married	69	32.5

	Frequency	Percentage
Divorced	42	19.8
Separated	30	14.2
Others	30	14.2
Working experience		
1-5	33	15.6
6-10	90	42.5
11-15	36	17.0
16 yrs. and above	53	25.0
Total	212	100.0

7.2 Responses to survey questions

Question 1: What are the identified challenges to DICON Research and Development in Nigeria?

From Table 2-1, there are a large number of identified challenges to DICON Research and Development in Nigeria. This is because the respondents' cumulative mean response of 3.436 is higher than the 3.00 standard/decision mean. The table also indicates that the respondents believe that there are misappropriations from the defense budget for R&D as this view attracted the second highest mean agreement of 3.623. The respondents also strongly believe that the shortfall in the supply of raw materials for the production of military hardware and armaments as indicated by the highest mean agreement level of 3.632. In summary, there are a large number of identified challenges to DICON R&D in Nigeria, particularly as DICON lacks principal raw materials and resources that could be sourced locally from steel factories such as the Ajaokuta Steel Project, resulting in the need for expensive imports. The report by Crisis Group Africa Report (2016) bears this out further, and they had concluded that the paucity of raw materials would lead to high import costs which could negatively impact the nation's economy and divert funds that may otherwise be used for development of other sectors such as education and agriculture. Habib's (2015) findings also supported the claim that import costs increase due to non-availability of development centers with modernized plants for arms and ammunition.

<Table 2-1> Summary of responses to 14 survey questions using 5 Likert scale (N=212)

S/N	Questions	% SA	% A	% UD	% D	% SD	Mean
1	Dwindling defense budget from the Ministry of Defence for support for R&D in military operations and hardware.	60	42	39	40	31	3.283
2	Lack of bilateral cooperation and relationship among defense industry with developing countries.	54	77	35	31	15	3.585
3	Lack of national sovereignty of pooling and sharing military resources of developed countries with developing countries of modernized military hardware.	36	73	66	30	7	3.476
4	Discrepancies in defense budget on R&D.	53	44	42	40	33	3.208
5	Lack of skilled manpower/human resources for manufacture development of military hardware.	49	79	39	32	13	3.561
6	Lack of training grounds for officers and engineers to train and retrain in military innovations.	41	69	66	29	7	3.509
7	Lack of production of adequate military equipment's to strengthen ongoing war against insurgency and terrorism in the country.	46	45	32	53	36	3.057
8	Shortfall of the supply of raw materials for production of military hardware and armaments.	52	75	52	21	12	3.632
9	Misappropriation of defense budget on R&D.	52	82	36	30	12	3.623
10	Lack of technology transfer innovation and greater commitment to R&D collaborations among defence industries and industrial production.	38	72	66	30	6	3.283
11	Lack of educational and research institutions for training of officers and education of officers and engineers.	54	40	42	46	30	3.585
12	Lack of adequate modernized military hardware and equipment's to tackle insecurity and proliferation of arms among bandits in the country.	52	82	36	30	12	3.476
13	Corruption and scandal in the defense industry for support of development and purchase of military equipment's and hardware.	38	72	66	30	6	3.208
14	Lack of provision of modernized military equipment, tools, and gadgets and refurbishment of old artilleries.	54	40	42	46	30	3.561
Cumulative mean							3.436

Key= SA: Strongly Agree, A: Agree, TD: UD: Undecided Disagree, SD: Strongly Disagree.

Question 2: What are the effects of the bilateral cooperation and alliance with the Republic of Korea's Army on the advancement in the R&D efforts of DICON?

An increase in personnel through defense industry cooperation and technological capacity

building in collaboration with advanced military organizations for self-sufficiency was also perceived to be effective, as indicated by the mean agreement of 3.288 (Question #3 in Table 2-2). This reveals that the defense industry must increase labor resources at the plant for the proper development of artillery, tanks, and military equipment needed for missions and reconnaissance. In summary, such bilateral cooperation arising from a military alliance with the Republic of Korea is vital. This conclusion is in accordance with Habib (2015), where the author states that for any nation to succeed effectively and meet security challenges, it must partner with developed countries to improve its military and technical capabilities. This is necessary to curb the insecurities and insurgency due to the rise of militant groups, such as BH and ISWAP, within and outside the country.

<Table 2-2> Summary of responses to 4 survey questions using 5 Likert scale (N=212)

S/N	Questions	% SA	% A	% UD	% D	% SD	Mean
1	Provision of exchange programmes and military education for military officers and engineers for effective performance and combat strategies.	53	78	38	31	12	3.608
2	Provision of raw materials for the manufacturing of arms and ammunition through importation for the armed forces to counter-insurgency operations.	37	73	66	30	6	3.495
3	Provision of manpower through defense industry cooperation and capacity building on technology expertise of advanced military industrial giants for self-sufficiency.	54	46	43	45	24	3.288
4	Provision of funding on military equipment such as ballistic vest, helmets, combat tanks, and artillery to combat extremism and internal security challenges in the country.	50	76	43	32	11	3.575
Cumulative mean							3.492

Key= SA: Strongly Agree, A: Agree, TD: UD: Undecided Disagree, SD: Strongly Disagree.

Based on these findings, it is expected that the cooperation with the Republic of Korea for promoting peace and providing tactical equipment and logistics support will promote new discoveries and improvement in R&D in military warfare and enhance the security along and within the borders of the country (Abdulsalam, 2015). Previous studies by Habib (2015) investigated arms procurement, while the current study concentrates on the role of the Ajaokuta Steel Project in supplying the steel raw materials required for ammunition production. The importance of the collaboration of DICON with the Republic of Korea has also been examined. Meanwhile, in agreement with an earlier study by Associated Press (2019), this study confirms

that Nigerian military expenditures has grown exponentially due to international alliances and collaboration in the supply of military hardware and equipment, and the availability of raw materials for production of artillery will considerably improve Nigerian GDP in terms of income from the defense sector.

7.3 OVERDEPENDANCE ON IMPORT OF RAW MATERIALS

Defense industries worldwide use steel in various forms and shapes as their principal raw material. DICON needs sufficient and readily available raw materials to operate. The lack of access to principal raw materials and resources from local steel factories, such as the Ajaokuta Steel Project, could drive up imports and drastically affect the country's economy (Habib, 2015). In view of the collected data, this paper recommends the following initiatives (Table 3) to address the identified challenges:

<Table 3> Challenges to defence industry cooperation and production

Challenges	Recommendations
Protection of military intellectual property	Military designs and models of military hardware and equipment at DICON, as proffered by the National Office for Technology Acquisition and Promotion, must prioritize intellectual property in its research efforts to generate urgent solutions to the equipment and ordnance needs of the nation.
Promotion of technology transfer and R&D collaborations among defense industries across the globe	There is the need for governments to adopt a purposeful approach to R&D issues and combined R&D mechanism among countries in defense and industrial production to harness the nation's efforts towards technology transfer.
Promotion of skilled manpower cooperation	The Ministry of Defence in collaboration with developed countries must focus on robust and dynamic strategies for sustainable and vibrant technology acquisition through innovation, involving highly skilled officers with the right capabilities for a modernized military outfit.
Provision of adequate budgetary allocation and funding from the defense ministry for DICON R&D	The Ministry of Defence should ensure they provide adequate funding through transparent policy for the R&D of weapons required to tackle insecurity in the country.
Collaboration with local suppliers for raw materials	DICON could partner with the RMRDC for the supply of basic raw materials for the manufacture of military hardware and armaments that were imported hitherto.
Revival and strengthening of educational and research institutions for training of officers	Provision of in-house training programs annually/bi-annually and professional consultation of DICON institutions with developed countries for training and education of officers to promote synergy among the DICON top management, staff, and engineers.

Challenges	Recommendations
Revitalization of the moribund Jebba/Ajaokuta Explosives and Steel Factory	The Ajaokuta Steel Project and moribund explosives factory in Jebba could be revitalized for production of steel. The steel project has the capacity of producing 5.2 million metric tons of steel products for both domestic and industrial usage. This single act could permit DICON to use local raw materials for Nigeria's military hardware - leveraging in-source materials and reducing the import of principal raw materials for the production of military equipment and arms to further strengthen the ongoing war against terrorism and other forms of insecurity in the country.

VIII. CONCLUSION

The Defence Industries Corporation of Nigeria can be properly supported with adequate funding and appropriate budgetary allocation to support R&D, expertise, and policy formulation. Hence, it can be hallmark for research and manufacture of military equipment by leveraging local resources to meet global standards. Over the years, the corporation has been importing raw materials through bilateral cooperation with developed countries across the globe, resulting in vast amounts of capital being diverted to into foreign trade. This act could help conserve the much needed foreign exchange to improve the Nigerian economy and increase the GDP of the nation. Future research could involve identifying factors that could improve Nigerian military equipment towards tackling insecurity in the country.

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Author contributions

Conceptualization: DKSJ and AJ; Resources and Literature review: DKSJ; Investigation and Methodology: DKSJ and AJ; Writing (Original Draft): DKSJ; Writing (Review and Editing): DKSJ, AJ, and OSU; Project administration and Supervision: OSU.

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