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The Global Revolution in Military Affairs and Combat Effectiveness: Challenges and Prospects for Nigeria

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ABSTRACT

The advent of the Global Revolution in Military Affairs (RMA) has fundamentally transformed the character of warfare, emphasizing technological superiority, precision weaponry, information dominance, and network-centric operations. This paper examines the implications of the RMA on Nigeria's combat effectiveness, assessing the challenges posed by structural deficiencies, limited defense spending, inadequate technological capacity, and institutional inertia. Using qualitative analysis and a review of secondary data, the study reveals a significant gap between Nigeria's current military capabilities and the strategic demands of modern warfare. However, it identifies key prospects for improvement through policy reforms, enhanced investment in defense technology, regional partnerships, and the integration of artificial intelligence, cybersecurity, and drone warfare. The paper concludes that while Nigeria faces substantial obstacles in aligning with the dynamics of the RMA, strategic commitment to modernization and innovation can enhance its combat readiness and national security architecture.

Keywords: Revolution in Military Affairs, combat effectiveness, Nigeria, military modernization, information warfare, defense technology

INTRODUCTION

The landscape of modern warfare has undergone a profound transformation, driven by rapid advancements in technology, strategic doctrines, and information systems. The concept of RMA gained prominence towards the end of the Cold War, particularly with the increasing role of information technology, precision-guided weapons, intelligence, surveillance, and reconnaissance systems, which collectively enhance combat effectiveness [1], [2]. According to [3], this transformation, widely recognized as the Revolution in Military Affairs (RMA), has fundamentally altered how wars are planned, conducted, and won across the globe. Ranging from precision-guided munitions and unmanned aerial vehicles to cyber warfare and network-centric operations, the RMA underscores the increasing reliance on sophisticated technologies to enhance combat effectiveness. Modern military engagements are increasingly characterized by speed, precision, and network-centric operations, necessitating a shift from traditional mass-based approaches to capability-based frameworks [4]. It is on this notion that [5], opined that Nations that have embraced these innovations have redefined their military capabilities, gaining asymmetric advantages in both conventional and unconventional warfare. Nigeria, like many developing nations, faces critical challenges in adapting to this global military transformation. Despite its significant military capabilities within the African continent, the country continues to grapple with issues of inadequate technological infrastructure, outdated training practices, insufficient funding, and limited integration of advanced combat technologies [6]. These challenges are further compounded by internal security threats such as terrorism, insurgency, banditry, and piracy, which demand a redefinition of strategic and operational paradigms. Consequently, Nigeria's capacity to effectively respond to both internal and external security threats remains limited. This paper examines the implications of the global RMA for Nigeria's military effectiveness. It explores the challenges that impede Nigeria's integration of

RMA principles and technologies, and evaluates the prospects for reform and modernization. By analyzing the intersection of global military trends and Nigeria's defense realities, the study aims to provide policy-relevant insights that can support the transformation of the Nigerian armed forces in the 21st century.

Literature Review

The concept of a Revolution in Military Affairs (RMA) refers to significant changes in warfare, driven by the innovative application of new technologies, leading to profound shifts in military doctrine, operational strategies, and organizational structures. Historically, advancements such as the invention of gunpowder, the steam engine, and the atomic bomb have exemplified RMAs by fundamentally altering combat methods. The concept of the revolution in military affairs (RMA) has been a subject of scholarly debate and policy analysis for decades. According to [1], RMA encompasses a paradigm shift in warfare characterized by technological innovations, changes in military doctrines, and the reorganization of forces to achieve strategic superiority. In their study, [2], emphasized that the integration of information technologies has reshaped command and control processes, making warfare increasingly precise and efficient. In contemporary times, the RMA is characterized by the integration of precision-guided munitions, advanced surveillance systems, information communication technologies (ICT), and network-centric warfare capabilities. For developing countries like Nigeria, embracing the RMA presents both challenges and opportunities. The Nigerian Armed Forces have historically faced issues such as outdated equipment, inadequate technological infrastructure, and insufficient funding, hindering their operational capabilities. Recent efforts to modernize include plans to acquire advanced military hardware, such as the approval to borrow \$618 million for the purchase of six Italian-made M-346 attack jets and ammunition, aiming to renew the air force fleet and address security challenges posed by various armed groups [7]. [6], note that Nigeria's defense strategies are often undermined by inadequate technological infrastructure, lack of funding, and obsolete training methodologies. These limitations hinder the effective adoption of modern combat technologies that are essential for addressing contemporary security threats, including terrorism and insurgency. In his work, [4], argues that cultural and organizational factors also influence the adoption of RMA principles, suggesting that institutional resistance to change can impede technological advancements in military settings. This perspective is particularly relevant for developing countries like Nigeria, where bureaucratic inefficiencies and corruption may further exacerbate existing challenges. Despite these challenges, opportunities for improvement exist. Enhanced collaboration with technologically advanced nations, increased investment in defense technology, and improved training practices are some of the prospects for Nigeria to effectively harness the benefits of RMA [6].

METHODOLOGY

This study adopts a qualitative approach through the review of existing literature, policy documents, and scholarly articles related to the revolution in military affairs and Nigeria's defense strategies. The qualitative method allows for an in-depth analysis of various perspectives on the challenges and prospects of adopting modern military technologies and strategies within the Nigerian context. Thematic analysis was employed to identify recurring themes, challenges, and proposed solutions to enhance Nigeria's combat effectiveness.

Conceptual Clarifications

Revolution in Military Affairs (RMA)

The concept of the Revolution in Military Affairs (RMA) refers to a fundamental change in the nature and conduct of warfare, driven primarily by advancements in military technology, strategic doctrines, and organizational innovations. It signifies more than just technological upgrades—it encapsulates the integration of information-age technologies with new modes of warfighting that enhance military effectiveness, precision, and speed [9]. Historically, revolutions in military affairs have occurred during periods of transformative change, such as the introduction of gunpowder, mechanized warfare, and nuclear weapons. The current wave, often associated with the post-Cold War era, centers on innovations such as precision-guided munitions, real-time surveillance, network-centric warfare, cyber capabilities, and unmanned systems [3]. RMA is not solely about acquiring advanced equipment; it also involves changes in military strategy, training, organizational structure, and command systems to fully leverage these technologies [9]. Nations that have effectively adopted RMA principles have demonstrated increased operational flexibility, improved intelligence coordination, and superior battlefield dominance. In essence, RMA encapsulates a shift from traditional mass-based warfare to knowledge-based warfare, where information superiority and technological integration become decisive factors. The implication is that military success increasingly depends on adaptability, innovation, and a holistic transformation of defense institutions.

Combat Effectiveness

Combat effectiveness refers to the overall capability of a military force to accomplish its mission objectives in a conflict or combat environment. It encompasses a combination of factors such as tactical proficiency, quality and quantity of equipment, leadership, morale, training, discipline, and adaptability to dynamic battlefield conditions [9]. A militarily effective force is not solely defined by its size or firepower, but by its ability to coordinate actions, respond to threats, and sustain operational momentum under complex and often unpredictable circumstances. Modern interpretations of combat effectiveness also highlight the critical role of technological integration, including intelligence, surveillance, reconnaissance (ISR) capabilities, cyber warfare competence, and communication networks. In the context of the global Revolution in Military Affairs (RMA), combat effectiveness increasingly depends on the extent to which a force can leverage technological superiority, information dominance, and precision engagement to outmatch adversaries [3]. For developing nations like Nigeria, understanding and enhancing combat effectiveness means bridging the gap between traditional combat methods and modern, digitized military doctrines. This involves upgrading military infrastructure, improving strategic planning, and investing in human capital development to ensure readiness for both conventional and asymmetric threats.

Overview of the Global Revolution in Military Affairs

The concept of the Global Revolution in Military Affairs (RMA) refers to a fundamental transformation in the nature and conduct of warfare, driven primarily by the integration of advanced technologies, innovative doctrines, and new organizational structures. RMA encompasses a shift from traditional, industrial-era warfare to information-based, network-centric operations that emphasize precision, speed, flexibility, and strategic dominance [2]. This transformation has been largely facilitated by rapid developments in information and communication technology (ICT), robotics, artificial intelligence (AI), space-based surveillance, and precision-guided munitions. [3], in his words, says that Key features include digitization of battlefield operations, use of precision-guided weapons, satellite communication, and artificial intelligence. Countries such as China, Russia, and Israel have adopted customized approaches to RMA, reflecting national doctrines and threat perceptions. Historically, revolutions in military affairs have occurred at various times, such as the introduction of gunpowder, the use of tanks and aircraft in World War I and II, and the development of nuclear weapons during the Cold War. However, the current RMA is distinctive in its scope and velocity, primarily characterized by the United States' military strategy post-Gulf War and the subsequent adaptation by other global powers like China and Russia [10]. The essence of this revolution lies in gaining information superiority and conducting operations that are faster, more lethal, and more precise. Modern RMA emphasizes the importance of joint operations, real-time situational awareness, and enhanced decision-making capabilities. The use of drones for surveillance and combat, cyberwarfare tools, satellite-based systems, and autonomous weapons has redefined strategic calculations and deterrence models. This transformation has led to the emergence of hybrid warfare, in which state and non-state actors combine conventional and irregular tactics with cyber operations and information warfare [11]. Importantly, the RMA has significant implications for developing countries. While technologically advanced nations continue to push the boundaries of innovation in military capabilities, countries like Nigeria face challenges in adapting to these shifts due to limited technological infrastructure, inadequate defense funding, and underdeveloped research and development sectors. Understanding the global dynamics of RMA is crucial for Nigeria to formulate effective defense strategies, build indigenous capabilities, and enhance national security in an increasingly complex and technologically advanced global security environment.

Nigeria's Current Military Landscape

Nigeria's armed forces have played pivotal roles in peacekeeping missions and counterinsurgency operations, especially against Boko Haram and other insurgent groups. Nigeria maintains one of Africa's largest military forces, comprising over 230,000 active personnel. Despite its size, Nigeria's global military ranking has declined in recent years. According to the 2024 Global Firepower Index, Nigeria dropped to 39th globally, down from 36th in 2023 and 35th in 2022. This decline reflects the statement by [12], as they opined that the force remains largely conventional, with limited integration of modern RMA technologies. To address these challenges, Nigeria has initiated several modernization programs. In 2024, the Nigerian Air Force expanded its fleet by acquiring 24 Italian-made M-346 attack jets and 10 AW-109 Trekker helicopters from Leonardo S.p.A. The first three M-346 jets are expected to be delivered by early 2025, with the remaining deliveries extending until mid-2026. Additionally, Nigeria approved borrowing approximately \$618 million to purchase six Italian-made M-346 attack jets and ammunition. These acquisitions aim to bolster Nigeria's counterinsurgency capabilities, particularly

against threats in the northeast and northwest regions, [7]. Furthermore, the Nigerian government is investing in domestic defense production. [13], as the minister of defense, said that efforts are underway to expand local manufacturing of military equipment, with over 50 private companies in Nigeria and abroad participating in these initiatives. The establishment of a maintenance hub in Nigeria to support the new M-346 fleet is also part of this strategy, [7]. Despite modernization efforts, Nigeria faces persistent security challenges. In April 2025, a surge in rural violence in northern Nigeria resulted in over 150 deaths and thousands displaced, particularly in Benue and Plateau states. This violence is rooted in long-standing conflicts over land and resources, exacerbated by climate change and an influx of arms [14]. Additionally, the northeast region has witnessed a resurgence of militant violence. In his report, [15] says that Boko Haram and its splinter group, the Islamic State West Africa Province (ISWAP), have escalated attacks using advanced tactics such as armed drones and roadside explosives. In response, the Nigerian military appointed Major General Abdulsalam Abubakar as the new commander to lead operations against these insurgencies, [16]. The strategic outlook at the moment is that Nigeria's military is at a critical juncture, balancing the need for modernization with ongoing security challenges. While investments in new equipment and domestic production are steps in the right direction, addressing systemic issues such as logistics, training, and inter-agency coordination remains essential. The success of these efforts will determine Nigeria's ability to enhance its military effectiveness and restore its standing both regionally and globally.

Challenges Facing Nigeria in Adopting the Revolution in Military Affairs (RMA)

The adoption of the Revolution in Military Affairs (RMA) presents significant strategic opportunities for nations seeking to enhance their defense capabilities through the integration of advanced technologies, network-centric operations, and sophisticated combat systems. However, for Nigeria, several interrelated challenges hinder the effective assimilation of RMA principles into its military doctrine and operational frameworks.

1. Inadequate Funding and Budgetary Constraints

One of the foremost obstacles to Nigeria's adoption of RMA is inadequate defense spending. While Nigeria maintains one of the largest militaries in Africa by personnel count, its defense budget remains relatively low in proportion to the scale of its security challenges. This financial limitation restricts the acquisition of cutting-edge technologies, modernization of platforms, and sustained research and development (R&D) in defense innovations [17]. The high cost of RMA technologies—such as satellite systems, advanced ISR (Intelligence, Surveillance, Reconnaissance) platforms, and precision-guided munitions—makes them largely unaffordable within Nigeria's current fiscal constraints.

2. Technological Backwardness and Infrastructure Deficiencies

RMA thrives on a robust technological ecosystem, yet Nigeria's defense sector is plagued by poor technological infrastructure. There is limited indigenous capacity for the development and integration of systems such as command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR). This technological gap significantly undermines efforts to establish a digitized and network-centric military force [18]. Furthermore, unreliable energy supply, inadequate internet coverage, and a lack of secure data networks hinder the digital transformation required by RMA.

3. Human Capital and Skills Gap

The operationalization of RMA requires a highly trained and technologically proficient military workforce. Unfortunately, Nigeria faces a considerable skills deficit in this regard. There are few specialists trained in cyber warfare, electronic warfare, artificial intelligence applications, and systems engineering within the Nigerian Armed Forces. Training institutions are also yet to fully align their curricula with modern warfare trends, making it difficult to produce personnel equipped to handle the complexities of RMA-oriented combat environments [19].

4. Bureaucratic Inefficiencies and Corruption

Institutional inefficiencies and pervasive corruption within the defense procurement system pose serious challenges to RMA adoption. Procurement processes in Nigeria have often been criticized for lack of transparency, politicization, and the diversion of funds [20]. These systemic flaws delay or distort acquisition and modernization programs, making it difficult to achieve cohesive and sustained transformation in military affairs.

5. Overdependence on Foreign Technology

Nigeria's heavy reliance on foreign military equipment and technologies further hampers the localization of RMA capabilities. With limited local defense industrial base and research institutions, the country remains dependent on external suppliers for nearly all advanced systems. This dependency not only

affects sustainability and maintenance but also exposes the country to vulnerabilities associated with geopolitical restrictions, arms embargoes, and the risk of technology denial [21].

6. Persistent Internal Security Challenges

Nigeria's ongoing battles with insurgency, banditry, separatist agitations, and communal violence demand large allocations of resources toward immediate tactical responses rather than strategic, long-term transformation. The intensity of these internal conflicts forces the military to prioritize counterinsurgency and stabilization missions, leaving little room for doctrinal shifts towards RMA-compatible warfare approaches [22].

Prospects for Enhancing Combat Effectiveness in Nigeria

Nigeria's ability to adapt to the global revolution in military affairs (RMA) presents numerous prospects for improving combat effectiveness, especially in the context of asymmetric threats such as terrorism, insurgency, and transnational organized crime. Leveraging technological innovation, strategic reforms, and institutional capacity-building offers the military a path to transition from conventional warfare structures to more agile and intelligence-driven operations. One significant prospect lies in the integration of emerging technologies such as unmanned aerial vehicles (UAVs), satellite surveillance, and artificial intelligence (AI)-assisted decision-making systems into Nigeria's defense architecture. These technologies offer real-time battlefield awareness, target precision, and enhanced situational analysis, reducing reliance on manpower-intensive methods [23]. When effectively deployed, they can bridge capability gaps and increase operational efficiency, especially in remote or hostile terrains. Additionally, joint military training programs and defense diplomacy with technologically advanced nations present opportunities for knowledge transfer and capacity enhancement. Engagements with countries like the United States, China, and Turkey have already led to improvements in counterinsurgency strategies and equipment upgrades [24]. Expanding such partnerships can help Nigeria standardize its military doctrine with global best practices, thus boosting combat readiness. Moreover, investment in local defense industries can significantly enhance self-sufficiency and reduce overdependence on foreign arms. Institutions like the Defence Industries Corporation of Nigeria (DICON) have the potential to meet domestic arms demands if given proper funding and oversight. Local research and development (R&D) in military technology would not only reduce costs but also stimulate innovation tailored to Nigeria's specific security needs [25]. Human capital development is another vital area. The establishment of military academies with updated curricula on cyber warfare, drone operations, and psychological operations would equip personnel with modern warfare competencies. Enhancing welfare, morale, and professionalism through better salaries, housing, and promotion policies is essential to ensure sustained combat effectiveness [26]. Finally, civil-military collaboration and public trust are crucial to operational success. Strengthening intelligence sharing between the military, police, and civilian populations, especially in restive regions like the North-East, will improve early warning systems and community-driven security responses [27]. Transparency and accountability in military operations would also help in gaining public support and legitimacy. In summary, Nigeria stands at a pivotal point where reforms and innovations aligned with global military transformations can vastly improve combat effectiveness. Success will depend on political will, sustained funding, and a strategic shift from reactive to proactive defense planning.

CONCLUSION

The ongoing Global Revolution in Military Affairs (RMA) presents both a challenge and an opportunity for Nigeria in its quest to enhance national security and military effectiveness. As warfare becomes increasingly driven by advanced technologies such as artificial intelligence, cyber capabilities, precision-guided munitions, and real-time surveillance systems, Nigeria must reassess its military doctrines, strategies, and investments. The nation's current military infrastructure and training lag significantly behind the standards required for effective engagement in contemporary warfare environments. This gap is further exacerbated by issues such as poor funding, corruption, weak industrial base, and inadequate policy frameworks. Nonetheless, with strategic planning and political will, Nigeria can harness the prospects of the RMA to improve its combat readiness and operational effectiveness. This requires the modernization of defense systems, human capacity development, local research and development, and international collaborations. Policies must also prioritize transparency, accountability, and long-term military reforms to sustain progress. Ultimately, embracing the RMA is not merely about technological acquisition but about transforming Nigeria's military philosophy and institutional structure to respond effectively to the evolving nature of warfare. By aligning her defense posture with global best practices, Nigeria stands a chance to not only enhance national security but also contribute meaningfully to regional and global peacekeeping operations.

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