African Journal of Social Sciences and Humanities Research
ISSN: 2689-5129
Volume 8, Issue 4, 2025 (pp. 21-36)
www.abjournals.org

THE ROLE OF RESEARCH AND INNOVATION IN SOCIO-ECONOMIC DEVELOPMENT OF BAYELSA STATE

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Cite this article:

Wenibowei Korikiye, Binaebi Bariweni (2025), The Role of Research and Innovation in Socio-Economic Development of Bayelsa State. African Journal of Social Sciences and Humanities Research 8(4), 21-36. DOI: 10.52589/AJSSHR-EPWYD01R

Manuscript History

Received: 18 Sep 2025

Accepted: 20 Oct 2025

Published: 28 Oct 2025

ABSTRACT: *This study investigates the role of research and innovation in driving socio-economic development in Bayelsa State, Nigeria, and identifies the core challenges limiting its effectiveness. Globally, research and innovation are recognized as critical engines for development, fostering a complementary relationship between idea formulation and practical application to solve societal problems. In Bayelsa State, which is rich in resources but faces high rates of poverty, unemployment, and infrastructural decay, research and innovation are positioned as key mechanisms for transformation, capable of improving sectors like healthcare, education, agriculture, and public service delivery. Employing a descriptive survey design and thematic analysis of data gathered through key informant interviews from academics, researchers, and innovators in the state, the findings reveal that the impact of research and innovation is significantly constrained. The major obstacles identified are inadequate funding for tertiary institutions and research activities, the severe lack of supporting infrastructure (such as reliable electricity and internet), and a pervasive absence of political will and supportive policies from the government. To harness the state's potential, the study recommends strategic interventions, including supportive government policies, increased funding for research institutes, enhanced collaboration between the private and educational sectors, and the creation of specialized institutes to guide research activities toward localized developmental needs.*

KEYWORDS: Research, Innovation, development, Government Policy, socio-economic, Bayelsa.

Article DOI: 10.52589/AJSSHR-EPWYD01R
DOI URL: https://doi.org/10.52589/AJSSHR-EPWYD01R

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INTRODUCTION

Research and innovation are two critical drivers that work together for development to occur (Reddy et al., 2024). While research involves problem-solving and the production of new knowledge that addresses the challenges confronting social and economic development, innovation is focused on the application of this new knowledge and solutions developed from research by creatively applying them to improve society (Scuotto et al., 2024). Hence, research and innovation bring together two important engine rooms in society that drive development, which are the academia and researchers as well as the innovators and entrepreneurs. Thus, research and innovation foster a symbiotic and complementary relationship between theory or idea formulation and application that aligns towards problem-solving and value addition. In short, it highlights the role of academia and industry in engineering development (Base, 2025).

Development in all forms, whether economic, social or political, is targeted at ensuring qualitative and quantitative improvement in the lives, livelihoods and outcomes of people and the general society whereby barriers such as want, lack, fear or insecurity are removed. To this end, research and innovation play a huge role in addressing socio-economic challenges to development, such as food insecurity, healthcare crises, insecurity or low productivity, by developing practical knowledge-driven solutions and technologies that fix them (Aletor, 2013; Tariq, 2024).Hence, the role of research and innovation in development and prospects for socio-economic advancement cannot be overemphasised or ignored.

Scholars have argued that there exists a positive relationship between the availability of quality research, the investment and funding of quality research, the support for innovation and entrepreneurship and the level of innovation in a society and the state and level of development in the society (Didenko et al., 2022; Lupenko, 2018). These scholars further argue that the rationale behind this assumption is that research and innovation are tied to the social and economic problems confronting a society. Therefore, as research and innovation increase and improve, the problems will be addressed, hence creating opportunities for development to happen. Furthermore, the motivation behind any good research or innovation (subjectively) is geared towards improvement of society; as such, development becomes its goal (Bhalla &Fluitman, 2019).

However, for research and innovation to contribute to development, the public (government) and private sector (industry players, innovators and entrepreneurs) must ensure that they adequately and collaboratively fund and partner together in ensuring that the enabling environment in terms of infrastructure, support, policies and incentives is created to enable the academia, researchers and innovators to thrive (Adelowo, Akinwale &Olaopa, 2017). To this end, the constraints to research and innovation must be addressed both at the social and personal levels (Fayomi et al., 2019). In Nigeria, research and innovation face several challenges that undermine their impact, such as the lack of basic infrastructure such as electricity, reliable internet, high cost of data, data unavailability, policy inconsistency, poverty, and other socio-economic challenges that mitigate the progress of research and development (Aguboshim, et al., 2021; Oyinlola et al., 2024).

As a result, despite the visible link and role that research and innovation play towards advancing development, the state of development differs across societies significantly. And this development gap, among other factors, has been attributed to the presence or absence of

Article DOI: 10.52589/AJSSHR-EPWYD01R
DOI URL: https://doi.org/10.52589/AJSSHR-EPWYD01R

investment and support that research and innovation get that are tailored to the development of society. Bayelsa State is one of the states in Nigeria with vast natural, environmental and human resources that wrestle with the problem of development and can be addressed with research and development. However, like Nigeria, Bayelsa is affected by several problems that impede the research and innovation for socio-economic development.

Therefore, the question that begs for an answer is why has Bayelsa State not been able to effectively deploy and harness the benefits of research and innovation in addressing its pressing socio-economic challenges that result in human and socio-economic underdevelopment, or what factors continue to exist that militate against the utilisation of research and innovation in advancing and catalysing the process of socio-economic development in Bayelsa State? This study attempts to answer some of these questions, especially those that affect the role of research and innovation in socio-economic development in Bayelsa State. It also attempts to identify solutions that aim at addressing these problems as well as developing suitable policy recommendations that will be suitable in addressing and launching Bayelsa on the path of sustainable socio-economic development.

Statement of the Problem

Research and innovation are drivers of development yet developing and developmentally challenged societies have continued to pay little attention to them (Goñi Pacchioni, Maloney & Cirera, 2017). However, societies that have become developed or are on the path of sustainable development have prioritised research and innovation (Arbelaez & Parra Torrado, 2011). Research and innovation contribute to socio-economic development in multidimensional ways (Kwon-Ndung, Kwon-Ndung&Migap, 2014). From the production of new knowledge and scientific discoveries, the improvement of social processes and systems towards efficiency in the public sector, the development and invention of new products and services that improve the quality of lives of citizens, the driving of scientific and technological innovation that fuels industrialisation, and the transformation of raw materials and natural resources into finished and economically valuable goods and services, research and innovation continue to pedal the progress of human society and development (Lambrechts, & Hindson, 2016).

A key aspect of research and innovation is that it drives the transformation of socio-economic problems into scalable solutions that power socio-economic development (Audrey &Jaraji, 2016). However, different societies value and appreciate research and innovation differently. This is reflected in the quality of social, economic and political support that research and innovation attract from the government or private sector. Studies have shown that in developing countries, the government and private sector significantly fund and implement policies that encourage research and innovation (Organisation for Economic Co-operation and Development, n.d). On the other hand, countries around the world that battle with socio-economic development have poor investment and support for research and innovation (Mugwagwa et al., 2019). Yet there is a positive correlation between the output of research and innovation and socio-economic development.

Sadly, Nigeria, like many other countries in Sub-Saharan Africa (SSA), despite its abundance of natural and human resources and wealth, contends with poor socioeconomic development indicators across the economy, educational, scientific, technological, medical and other sectors. Also, a common denominator that exists in Nigeria and these countries is the poor

Article DOI: 10.52589/AJSSHR-EPWYD01R
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and lack of support and investment for research and innovation. Thus, this poor support and investment in research and innovation have translated into a lack of development, as the tools, knowledge and creativity to address socio-economic challenges continue to be lacking and non-existent at the social and individual levels of society (Ihuoma, 2024). In the Global Innovation Index 2024 report, Nigeria ranks 113th out of 133 countries and economies evaluated and shows a poor rating on innovation (Global Innovation Index, 2024). Several other studies have interrogated the roles and implications of research and innovation in Nigeria, reporting various findings; however, they suggest the need for improvement in them as well as show that the gap in research and innovation may account for the poor or marginal state of development in the country (Uchechukwu, Faga &Obeikwe, 2016).

However, there are very few studies at the sub-national level analysing and examining the role and impact of research and innovation on the socio-economic development of these states. Bayelsa State, which is one of the crude oil, gas and environmentally rich states, shows a similar reality of poor socio-economic development. Its condition has been described as a paradox of plenty and poverty. This evident empirical lack of data showing the role and impact of research and innovation in socio-economic development in Bayelsa State raises concern for this study. Therefore, this study seeks to fill this gap by identifying the challenges that confront research and innovation in Bayelsa State and the measures that can be implemented to improve the prospects of contributing to the socio-economic development of Bayelsa State through research and innovation.

Research Questions

1. In what ways do research and innovation contribute to the socio-economic development of Bayelsa State?
2. What challenges limit the role of research and innovation in promoting socio-economic development in Bayelsa State?

Research Objectives

1. To examine how research and innovation contribute to the socio-economic development of Bayelsa State.
2. To analyse the challenges that hinder research and innovation in driving socio-economic development in Bayelsa State.

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LITERATURE REVIEW

Research and innovation have been linked to socio-economic development of a society.According to Kwon-Ndung, Kwon-Ndung and Migap (2014), research and innovation are strategies adopted by countries for powering economic competitiveness and the growth of industries, or industrialisation, in society. Moreover, they argued that all forms of research (pure, applied, or experimental) and innovation that lead to the creation of new devices, processes and systems are veritable factors for socio-economic development. Therefore, the emergence of modern economies and globalisation was the product of research and innovation. Likewise, Ihuoma (2024) noted that research and innovation have always been major contributors to national development when countries strategically deploy them to achieve their developmental goals. It is crucial to emphasise that for research and innovation to effectively contribute to socio-economic development, governments, researchers, and innovators must ensure that the objectives of their research and the outcomes of their innovations are aligned with the social and economic needs of society.

Ihuoma (2024) noted that research aims at generating new ideas through a systematic and problem-solving approach. On the other hand, innovation is focused on utilising new knowledge or ideas derived from research and transforming that knowledge into creating products or refining existing products to ensure they perform better. Research and innovation both seek to transform socio-economic problems for knowledge and goods. Scholars have argued that the quality of and investment in research and innovation determines and influences the quality and level of social and economic development experience by a society. As Gyekye, Oseifuah and Vukor-Quarshie (2012) observed in achieving long-term that are sustainable to economic growth, drives job creation and availability as well as the reduction of poverty for developed and developing countries, research and innovation have played enormously in fuelling this path.

Research and innovation are important aspects to the development process (Oga, 2025). However, research and innovation were seen as activities for researchers, academics, scientists and laboratories without implications for socio-economic development (Ihuoma, 2024), this view is changing as research, and innovation is transforming society (Oga, 2025). Governments, the private sector and other institutions have funded research and innovation towards driving development in society. Despite their tremendous impacts, research and innovation are faced with several challenges in Nigeria. In Nigeria the inadequate funding to research and innovation is a major constraint.

Nigeria like most developing countries is bogged down with the question of socio-economic development and the improvement the welfare the citizens (Obamuyi& Fapetu,2016).The country is faced with high rates of unemployment, poverty, low industrialization, inflation, high maternal and child mortality, poor quality public service delivery, crime and criminality, low literacy, among other negative indicators of development that has lasted since independence. However, countries such as Singapore, Malaysia that shared similar challenges have improved significant competing globally, yet Nigeria have not made significant strides (Oluwatoyin et al., 2019; Umezulike, 2016). A common indicator attributed to the development of these countries has been tied to the role of and their investment in research and innovation through the development and encouragement of science, technology, engineering and mathematics (STEM) fields as well as other areas that advance human progress (Otaiku, 2022).

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Despite their tremendous impacts, research and innovation are faced with several challenges in Nigeria. In Nigeria the inadequate funding to research and innovation is a major constraint. The United States of America is a leading example of a country that the funding of research and innovation is a national priority towards its socioeconomic development and political standing in the world (Ihuoma, 2023). Research and innovation funding continues to improve in the United States, report indicates that in 2021, close to $90 billion was spent on research by higher institutions in the United States with 44% of these funds provided by the government for basic research (National Science Board, 2023). Similarly, in 2022, academic institutions receive over $97.8 billion in conducting and driving scientific research in the US (National Center for Science and Engineering Statistics, 2023).

Furthermore, other developed countries such as Ireland and the United Kingdom have also made substantial investment in financing to research and innovation between €963.7 million in 2022 and £19.4 billion for 2023 and 2024 respectively (Department of Further and Higher Education, Research, Innovation and Science, 2023; UK Research and Innovation, 2023). These investments are not isolated investment from the socio-economic needs of these societies, rather they are strategically targeted to improve socio-economic development. Moreso, studies have shown that there is a correlation between investment in research and innovation in the growth of a country's Gross Domestic Product (GDP).

Comparatively, Nigeria's investment and funding of research and innovation to tertiary institutions in the country such as universities, polytechnics, colleges of education and other specialized institutes continue to be low despites the fact that they are saddled with the responsibility of producing innovative and qualitative research and innovation (Ihuoma, 2023). In Nigeria, much of internal funding to universities, colleges and polytechnics are facilitated through the Tertiary Education Trust Fund's (TETFUND) Department of Research & Development/Centers of Excellence (R&D/CE). However, the scale of development needs in Nigeria does not match the paucity of funding that research and innovation is provided with to address these challenges.

One of the main drivers of national economic advancement, competitiveness and sustainable national development is innovation (Ajibade, 2025). Uchechukwu, Faga and Obiekwe (2016) noted that innovation is the backbone for economic development of a nation. As a result, the presence of the Global Innovation Index (GII) underscores this point, as it links a country's innovation to the state of their overall development. Therefore, the higher a country positions in the innovation index, the more chances it has in developing. Hence, across the world, countries including Nigeria have identified the critical place of innovation in driving the economy and building the institutional functionalities, processes and systems for national development (Akinwale et al., 2020). As Harry and Odiphri (2022) argued, the global socio-economic development efforts are driven by high and advancing technological innovations. Therefore, countries not innovating will not be developing. As a result, a nation's development is synonymous with innovation.

The Organisation for Economic Co-operation and Development (OECD) (2012) has identified innovation as a differentiating factor in addressing the pressing socio-economic and developmental needs confronting society. They noted that challenges such as access to clean drinking water, job creation, eradication of disease, and food security, among others, can be solved in an accelerated manner through innovation. Siyanbola (2008) found that 50% of the wealth generated by developed countries are products of technological innovations.

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Furthermore, Harry and Odiphri (2022) pointed out that the 20 leading economies in the world, including the United States of America, China, France, the United Kingdom, India, and South Korea, have innovation contributing to their development significantly.

Nigeria possesses enormous potential to be innovative and for innovation to drive development in the country. According to Oaikhenan and Aigheyisi (2022), Nigeria's is positioned as one of Africa's largest economies, over 200 million people with youth forming a large proportion of the country's population significantly contributing to an abundance of talents, creative ideas and human resources that can be harnessed in transforming the nation's innovation landscape, socio-economic development with the right policy intervention and economic incentives. With all of Nigeria's innovation potential, the country has not fared well globally. Ajibade (2025) noted that Nigeria ranks low in global innovation. The country is positioned at 113, that is at the bottom quartile of 130 national economies evaluated.

The innovation landscape in Nigeria is confronting with several challenges that has limited innovation and its impact on national socioeconomic development (Bansal, 2024). Issues such as systemic inefficiencies, poor infrastructure, unavailability of electricity, skills and trained manpower deficiencies, lack of funding, poor research and development (R&D) ecosystem, poor or weak collaboration between academic institutions and industry players have significantly undermined innovation in Nigeria. The role of government in addressing the systemic, policy-related and funding challenges of innovation is critical to positioning innovation in driving socio-economic development. For instance, policies that promote the transfer of technology, the investment in research and in the development of higher education are all factors required in boosting a country's innovativeness in the world.

METHODOLOGY

This study employed a descriptive survey design to investigate the role of research and innovation in socio-economic development in Bayelsa State. The design was chosen because it allows for the systematic collection of participants' views and experiences at a single point in time without manipulating variables.A purposive sampling technique was used to select twelve (12) information-rich participants: five academics drawn from different Bayelsa institutions, four researchers, and three innovators from the Bayelsa Tech Hub. This approach ensured that only respondents with relevant knowledge and experience were included.

Data were gathered through open-ended, semi-structured key informant interviews (KIIs), supported by secondary sources such as journal articles, policy reports, and credible news publications. Interviews were recorded with consent, transcribed verbatim, and analysed using thematic analysis, which enabled the identification of key patterns and themes. The integration of interview and documentary evidence ensured triangulation and enhanced the credibility of findings.

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DISCUSSION OF FINDINGS

Contributions of Research and innovation in Socio-economic Development in Bayelsa State

The role and contribution of research and innovation to socio-economic development in Nigeria and Bayelsa State has been described as multifaceted and multidimensional. The vast untapped natural and human potential in Bayelsa State places research and innovation as mechanisms for socio-economic development. As observed by one of the respondents:

Bayelsa can be transformed from what it presently looks like to a developed state, given its enormous resources. I believe that research and innovation hold the potential for this transformation. A lot of our problems need to be studied deeply, and local solutions can be birthed to address this. However, our universities and higher institutions are not properly funded (Academic, Niger Delta University, Amassoma, 2025).

However, the present reality in Bayelsa shows a worrisome state. The state suffers from rising poverty, insecurity, youth unemployment, restiveness, infrastructural decay and other pitiable indicators that negate its natural and human resource wealth. It has become important to localise ways that research and innovation can be strategically leveraged in transforming the state.

The problems facing Bayelsa State are not new problems. These are solvable problems. Many of our academics and researchers have studied and developed effective policy recommendations, but they have been ignored. I believe that we (as a society) need to approach research and innovation differently. We must look beyond politics to research and innovation for the solutions to our development needs (Academic, University of Africa, Toru-Orua, 2025).

Drawn from the above, respondents noted that research and innovation can significantly affect education, healthcare provision, agricultural productivity, business development, technology advancement, and policymaking in Nigeria and Bayelsa State. Research and innovation play a vital role in policy formulation, the design of interventionist programmes, and the establishment or enhancement of institutions for efficient service delivery. These efforts can lead to improvements in human capital, boost entrepreneurship, and facilitate the effective harnessing of natural resources, thereby fostering competitiveness and advantage in Bayelsa State.

In Bayelsa, research and innovation can help in different sectors. Whether it is healthcare or education, just name it. Research particularly can help us in designing effective programmes and policies that can improve the overall outcomes of society. Through research, government can identify better ways to deliver public services (Freelance Researcher working in Bayelsa State, 2025).

Research and innovation can serve as the backbone of economic productivity and industrialisation in Bayelsa State. Research and innovation have been associated with productivity. They enhance the capacity of small and medium businesses and sustain the industrial sector of society.

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At the Bayelsa Tech Hub, we have been able to help several small and medium enterprises leverage digital technologies such as social media to improve sales, reach global audiences and expand. In today's world, and in a state that is largely driven by SMEs, innovation is critical to driving productivity that can boost development (Innovator, Bayelsa Tech Hub, Yenagoa, 2025).

Also, research and innovation can cause small and medium enterprises to become large-scale businesses with the capacity to serve the needs of society through better and improved processes (Agada et al., 2021). This can in turn create jobs, create taxable wealth and improve social infrastructure. Furthermore, respondents noted that research and innovation can serve as a catalyst for social transformation in Bayelsa State, transforming the abundance of raw materials into tangible development. Research and innovation drive sustainability, which is critical to building sustainable economic development prospects for the state.

Another critical role of research and innovation is the provision of better service delivery. Research and innovation drive efficiency, which is a quality of good governance and functional societies. Through innovation, developing societies like Bayelsa State can ensure the provision of efficient services to their citizens by leveraging technology and other new systems for delivering good public services. Research and innovation are not only useful to businesses and the private sector; government and its public institutions can utilise research and innovation to effectively distribute resources, provide governance and drive open governance processes where citizens are carried along in the decision-making process. As such one of the respondents added that:

Research and innovation have become important elements of good governance around the world. As the world continues to move towards digital governance, open government processes and deepened citizen participation in the process of governance, the use of innovative processes, whether in the form of e-governance systems, social media to publicise information or digital means to access government services, will be essential. In Bayelsa, adopting innovation can also drive good governance (Academic, Isaac Jasper Boro College of Education, Sagbama, 2025).

Research and innovation can help in strategically positioning Bayelsa State and its citizens to benefit from the economic and development contribution of the Fourth Industrial Revolution in the 21st century. The world is undergoing rapid change, with the Fourth Industrial Revolution presenting new economic and development opportunities for regions, countries, and local communities to harness in their pursuit of socio-economic advancement.

Without effective investing and deploying research and innovation, Bayelsa is likely to miss out on the digital transformation going on in the world today. Nations and forward-thinking societies are heavily relying on research and innovation, whether in the form of new technologies or knowledge, to attract global opportunities and also position their societies for development (Academic, BYCOTECH Otuokpoti, 2025).

The respondents also noted that the advancement of artificial intelligence (AI) and other emerging technologies are fundamental foundational drivers of this revolution. Through research and innovation, Bayelsa State and its citizens can strategically prepare and position themselves to engage with the digital transformation that is defining the future of jobs, businesses, industrialisation, and more. Bayelsa State can become a key player in artificial

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intelligence development, robotics and other relevant areas that can provide technical jobs for its citizens. Furthermore, through research and innovation, Bayelsa State can utilise these emerging technologies as cost-effective tools in solving local problems within agriculture, healthcare, food security, poverty and employment.

Bayelsa is confronted with widespread environmental degradation. However, research and innovation can provide environmentally friendly and sustainable solutions in harnessing the economic and natural resources in the state such that both development and sustainability are actualised. A respondent added that:

Bayelsa can address environmental degradation by utilising research and clean innovation. By simply investing in research and innovation as well as the political will to implement them, the longstanding problem with environmental degradation can be solved. However, our government has lacked both the political will to support innovation and research (Academic, Niger Delta University, Amassoma, 2025).

According to O'Connell et al. (2025), research facilitates environmental innovation in society. Environmental innovation can bring about environmental sustainability. An important contribution to research and innovation is that it supports clean and alternative sources of energy, which can further accelerate the prospects of socio-economic development in the state. In addition, given that the majority of the inhabitants of Bayelsa State depend on the environment, protecting the environment plays a critical role in ensuring their socio-economic survival and their livelihood.

Research and innovation can play a role in harnessing the natural capital of Bayelsa State. Bayelsa State is a state blessed with vast natural capital that is stored richly in the environment. The natural capital in Bayelsa State is found in its environment. From the soil to the water bodies, Bayelsa State is considered productive for agriculture and filled with various untapped natural resources that can contribute to socio-economic development, such as new industries, job employment and income generation for the government. With research and innovation focused on developing these natural capitals, through the developing of practical and implementable ideas and products, the state can realise development from harnessing these resources.

Challenges confronting research and innovation in promoting socio-economic development in Bayelsa State

Several challenges confront research and innovation in Nigeria and in Bayelsa State that militate against its impact towards the advancement of socio-economic development in the country and state. Existing literature and respondents to this study have identified some of the challenges undermining their contribution as inadequate funding, poor supportive infrastructures, lack of political will and policy incoherence that tailors research and innovation in the direction of social and economic development in the state and country.

A. Funding Inadequacy

According to an academic that responded from Niger Delta University, he noted that:

The biggest challenge facing research and innovation, I mean the most pressing bottleneck that researchers and anyone that dares to conduct research face in Bayelsa is the lack of

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funding such as grants to enable them conduct qualitative research studies. The conduct of research is expensive, yet most researchers have to pay through their pockets with any form of support from the governments. With their meagre salaries, they cannot do research with significant impacts (Academic, Niger Delta University, Amassoma, 2025).

This position is reiterated by another researcher from Isaac Jasper Boro College of Education noting that:

Research cost money. The entire process of research requires funding. In Bayelsa, it is difficult were researchers have to fund their data gathering, data analysis, pay for research papers under exorbitant paywalls, and pay for experiments, it becomes difficult to do research. Our counterparts outside of the country access grants, government support and other institutional support to do research. It is not surprising that through research their society can develop (Isaac Jasper Boro of Education, Sagbama, 2025).

In most public universities and research institutions across the country, the problem of inadequate funding has been found as major challenge to research and innovation. This finding is supported by Somadina et al. (2023) that found that poor or inadequate funding not only stifles the development of modern laboratories and infrastructure but also limits the scope of research activities. Additionally, Onyekwelu (2024) added that further affect the professional development of quality academics, researchers and innovators with also affect the quality of their work and output to social and economic development.

B. Poor supporting infrastructure for research and innovation

The lack of critical yet basic infrastructure that creates a conducive environment for research and innovation to thrive in Bayelsa remains a major challenge. In Bayelsa, constant electricity, stable internet connections, access to public data, public libraries, tech hubs among others are issues. Researchers and innovators have to personally devise solutions to these problems which further increase their cost, discourage most from their study and create barriers for new researchers and innovators in pursing this path. As stated by an innovator from the Bayelsa Tech Hub:

The infrastructure to do innovation or build the technologies that solve the teething problems of Bayelsa State are unavailable and this makes it difficult for the young and old to work in the innovative space. In Bayelsa, it is difficult to get power supply, the internet is unstable and there are few affordable hubs that provide these facilities for researchers or innovators (Innovator, Bayelsa Tech Hub, 2025).

Furthermore, the absence of readily available infrastructure does not only affect innovators, but it also affects entrepreneurs and commercial stakeholders that converts research and innovative solutions into business ideas.

Electricity, affordable and stable internet connections that are supposed to be the bare minimum for researchers across the tertiary institutions in the state are seen as big deals. Across the states, electricity and free Wi-Fi connections for academics are inaccessible or unavailable in their offices. Academics that do research work in difficult environments with the basic resources unavailable (Academic, BYCOTECH Otuokpoti, 2025).

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Research and tertiary institutions are critical drivers of research and innovation in society. These institutions by their mandates are responsible for conducting research that seeks to solve teething socio-economic problems, develop innovative solutions and knowledge that can be applied by the industries in directly meeting the needs of society.As Fatumo et al. (2014) noted, the existing infrastructure for research and innovation is critically underdeveloped. In addition, there is a dire need for modern lab facilities to advance research and innovation in Nigeria (Fatumo et al., 2014). The lack of technological resources, coupled with poor investment from both public and private sectors, exacerbates the challenges faced by researchers and innovators,

C. Lack of Supportive Policies and political will to encourage research and innovation in the State

Research and innovations require the support and political will of government to thrive. However, in Bayelsa State there is a lack of visible support in terms of policy and the political will that encourage research and innovation. In Bayelsa State, the common approach is the eye-service political support for research and innovation that only sees the government making political statements without the necessary actions to back it. According to one of the respondents:

In Bayelsa the government only makes political statements that are not backed with actions. It is actions backed by the political will of government that will take research and innovation to the next level in the Bayelsa. Sadly, the support research and innovators needs in Bayelsa state is government making the right amount of investments in the tertiary institutions, creating grant opportunities and developing the systems that make the work of researchers and innovators easier (Innovator, Bayelsa Tech Hub, Yenagoa, 2025).

The findings of Osabohien et al. (2024) supported the above that stating that inconsistent government policies regarding innovation can impede the effective leveraging of innovation, thereby stalling economic progress (Osabohien et al., 2024). Supporting this view, Ogbo et al. (2019) added that inconsistent public policies present significant challenges to social enterprises, which are crucial for driving development.

CONCLUSION

This study concludes that while research and innovation hold significant, multifaceted potential to drive socio-economic development in Bayelsa State across sectors like healthcare, education, agriculture, and good governance, their impact is severely undermined by critical, systemic challenges. The study identified several challenges confronting research and innovation in Bayelsa such as inadequate funding for research institutes and individual researchers, the poor state of supporting infrastructure such as electricity and stable internet, and a persistent lack of supportive policies and political will from the government to genuinely encourage and implement research and innovation outcomes. Consequently, harnessing the state's natural and human potential requires a strategic, collaborative shift among the government, private sector, and academia by increasing funding, developing crucial infrastructure, and establishing a robust policy and institutional framework, such as specialised institutes, to localise and scale solutions for its pressing development needs.

Article DOI: 10.52589/AJSSHR-EPWYD01R
DOI URL: https://doi.org/10.52589/AJSSHR-EPWYD01R

African Journal of Social Sciences and Humanities Research
ISSN: 2689-5129
Volume 8, Issue 4, 2025 (pp. 21-36)

www.abjournals.org

RECOMMENDATIONS

After careful examination of the study, the following robust recommendations are provided to address the challenges facing research and innovation in order to harness it for socio-economic development in Bayelsa State.

I. Supportive Government Policy

Development is a policy issue. Development is influenced by the quality of policies that government and policymakers initiate and implement to address the social, economic and political problems of society. Research and innovation require the right policy environment to be effective and contribute to development. Therefore, to ensure the promotion of research and innovation towards development, Bayelsa State must make supportive forward-driving policies.

II. Funding research institutes and tertiary institutions

Actualising the capacity in the role of research and innovation in driving social and economic development demands that quality attention must be given to the tertiary/higher institutions in Bayelsa State. Across the world, research and innovation are capital-intensive and require enormous funding from government and private individuals to drive their activities and outputs. Similarly, tertiary institutions, which are the research and innovation centres in Bayelsa State, should not be narrowly conceived as capacity-building arenas that train students alone but should be viewed as the hub of research and innovation that is critical for realising the development agenda of the society and the governments.

III Increased Collaboration between the Private, Educational Sector and Policymakers

A critical step towards ensuring that research and innovation are tailored in the direction of promoting the socio-economic development of Bayelsa State is to prioritise collaboration between the ecosystem stakeholders, such as the private sector that comprises the innovators and entrepreneurs, as well as academics and researchers, including the government and other relevant policymakers. Research and innovation are interdependent processes, and the stakeholders that work within the sectors must increasingly collaborate and partner with each other in converting knowledge to products that are geared towards improving the social and economic realities of Bayelsa State.Too often, key industry players work in silos; however, if there must be substantive progress and impact of research and innovation, collaboration is the most important value that must guide the work that they do.

IV. Development of a strategic roadmap on localised social, economic and political issues that will guide the activities of research and innovation.

Achieving socio-economic development in Bayelsa State through research and innovation will require deliberate, forward-thinking and strategic multidimensional approaches that cut across government policies, creating the conducive socio-economic environment, providing institutional support and addressing concerns that researchers and innovators face in the process. Research and innovation are not carried out in isolation of the existing social, economic, cultural, institutional and political environments of the societies that their end products intend to develop. Also, the value of research and innovation is directly related to

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the local issues and problems that it seeks to address. This means that the existential realities of Bayelsa State will influence what research and innovation matters to the state and the people.

V. The Creation of Specialised Institutes and Centres in Bayelsa State to drive research and innovation.

In Ireland, the Department of Further and Higher Education, Research, Innovation, and Science is a specialised public institution that funds and drives the process of research and innovation in the country. This public institution funds research and innovation projects and studies from researchers, academics and innovators that solve various forms of social problems in the country. There is a need for Bayelsa State to create and model an institution of this nature where researchers, academics and scientists in the state working on solving indigenous problems can get support and financing to scale their outcomes into meaningful development-orientated solutions that meet the needs of the people.

ACKNOWLEDGEMENT

The researcher gratefully acknowledges the **Tertiary Education Trust Fund (TETFund)** for its vital financial support through the Institution-Based Research (IBR), which was instrumental in facilitating this study. The researcher also extends sincere appreciation to **Isaac Jasper Boro College of Education, Sagbama, Bayelsa State**, for providing the academic platform and institutional support necessary for this research.

REFERENCES

Adelowo, C. M., Akinwale, Y. O., &Olaopa, O. R. (2017). Innovation and knowledge transfer in Nigeria. *International Journal of Research, Innovation and Commercialisation, 1*(1), 57–73.

Agada, F. A., Dumani, M., Duke, E. S., &Oguru, F. A. (2021). Evaluating innovations in small and medium scale enterprises in Bayelsa State. *Journal of Economics, Finance and Management Studies, 4*(7), 904–911. https://doi.org/10.47191/jefms/v4-i7-03.

Aguboshim, F. C., Onwuka, I. N., Obiokafor, I. N., &Oboti, N. P. (2021). Factors challenging research and innovation in tertiary education in Nigeria. *World Journal of Advanced Research and Reviews*, *10*(1), 224-229.

Aletor, V. A. (2013). Leveraging endogenous research and innovation for sustainable livestock production, national food security and poverty alleviation in Nigeria. In *Proceedings of the 37th Annual Conference of the Nigerian Society for Animal Production (NSAP-2012)* (pp. 232–251). Nigerian Society for Animal Production.

Arbelaez, M. A., & Parra Torrado, M. (2011). *Innovation, research and development investment and productivity in Colombian firms* (IDB Working Paper Series No. IDB-WP-251). Inter-American Development Bank (IDB), Washington, DC.

Audrey, P. N. &Jaraji K. (2016). The Impact of Technology and Innovation (Technovation) in Developing Countries: A Review of Empirical Evidence: Journal of Business and Management Sciences, 4 (1), 7-11.

Article DOI: 10.52589/AJSSHR-EPWYD01R
DOI URL: https://doi.org/10.52589/AJSSHR-EPWYD01R

Bansal, P. (2024). The state of technology innovation in Nigeria: Trends, challenges and opportunities. *Journal of Marketing and Supply Chain Management*, *3*(3), 1-2.

Base, R. (2025). Assessing the socio-economic impact of research capability training on teachers in a Philippine school division. *International Journal of Education Humanities and Social Science, 8*(3), 48–61. https://doi.org/10.54922/IJEHSS.2025.0977

Bhalla, A. S., &Fluitman, A. G. (2019). Science and technology indicators and socio-economic development. In *Science and Technology Indicators for Development* (pp. 36-60). Routledge.

Bogoviz, A. V., Ragulina, J. V., &Barcho, M. K. (2018, April). Influence of innovations on regional socio-economic development. In *International Conference Project "The future of the Global Financial System: Downfall of Harmony"* (pp. 1200-1207). Cham: Springer International Publishing.

Didenko, I., Valaskova, K., Artyukhov, A., Lyeonov, S., & Vasa, L. (2022). Quality of scientific activity as a determinant of socio-economic development. Economics and Sociology, 15(3), 301-318. doi:10.14254/2071-789X.2022/15-3/17.

Fatumo, S., Adoga, M., Ojo, O., Oluwagbemi, O., Adeoye, T., Ewejobi, I., … &Nashiru, O. (2014). Computational biology and bioinformatics in nigeria. Plos Computational Biology, 10(4), e1003516.

Fayomi, O. S. I., Okokpujie, I. P., Fayom, G. U., & Okolie, S. T. (2019). The challenge of Nigeria researcher in meeting up with sustainable development goal in 21st Century. *Energy Procedia*, *157*, 393-404.

Goñi Pacchioni, E. A., Maloney, W. F., & Cirera, X. (2017, November 29). *Why poor countries invest too little in R&D.* Centre for Economic Policy Research. https://cepr.org/voxeu/columns/why-poor-countries-invest-too-little-rd.

Gyekye, A. B., Oseifuah, E. K., &Vukor-Quarshie, G. N. K. (2012). The impact of research and development on socio-economic development: Perspectives from selected developing economies. *Journal of Emerging Trends in Economics and Management Sciences*, *3*(6), 915-922.

Harry, D. M., & Odiphri, F. (2022)Technological Innovation And Socio-Economic Development In Nigeria: Issues And Perspectives. *Port Harcourt Polytechnic Academic Research Journal*,2022, 16-27. https://pharj.com.ng/index.php/PHARJ/article/view/4/5.

Kwon-Ndung, E. H., Kwon-Ndung, L., &Migap, J. (2014). Research and innovation strategies for economic competitiveness and industrial growth: Lessons for Nigeria. *European Journal of Business and Innovation Research, 2*(6), 56–76.

Lambrechts, W. D. B. H. M., & Hindson, J. (Eds.) (2016). Research and Innovation in Education for Sustainable Development: Exploring collaborative networks, critical characteristics and evaluation practices. Environment and School Initiatives – ENSI. https://www.ensi.org/global/downloads/Publications/416/CoDeS_researchbook_web.pdf.

Lupenko, Y. (2018). Modeling of socio-economic relations in scientific research processes. *Ekonomika APK*, *2*(25), 5-13.

Mugwagwa, J., Banda, G., Ozor, N., Bolo, M., &Oriama, R. (2019). *New approaches for funding research and innovation in Africa.* Nairobi, Kenya: African Technology Policy Studies Network (ATPS).

O'Connell, V., AbuGhazaleh, N. M., Browne, O., Farrell, M., Gleeson, M., & McGeown, E. (2025). Enhancing Sustainability: The Impact of Research and Development

Article DOI: 10.52589/AJSSHR-EPWYD01R
DOI URL: https://doi.org/10.52589/AJSSHR-EPWYD01R

Expenditure on Future Environmental Innovation in European Firms. *Sustainability*, *17*(12), 5412. https://doi.org/10.3390/su17125412.

Obamuyi, T. M., &Fapetu, O. (2016). The Nigerian economy in the face of socio-political challenges: a retrospective view and ways forward. *International Journal of Finance & Banking Studies*, *5*(3), 32.

Oga, J. (2025, August 13). *Nigerian government identifies research, development as key development drivers*. Voice of Nigeria. Retrieved from https://von.gov.ng/nigerian-government-identifies-research-development-as-key-development-drivers/.

Oluwatoyin, M. A., Dorothy, A. E., Oluwasogo, A., Osabohien, R., Esther, F., &Tomike, O. (2019). Technology-based FDI, manufacturing output and economic growth: A comparative analysis between Nigeria and Malaysia. *International Journal of Civil Engineering and Technology, 10*(3), 470–487. http://www.iaeme.com/ijmet/issues.asp?JType=IJCIET&VType=10&IType=3

Onyekwelu, R. (2024). Enhancing the quality of secondary education through professional development of teachers in Nigeria. British Journal of Multidisciplinary and Advanced Studies, 5(1), 194-205.

Organisation for Economic Co-operation and Development (OECD) (n.d). Public support to R&D and innovation. OECD. https://www.oecd.org/en/topics/public-support-to-r&d-and-innovation.html.

Osabohien, R., Worgwu, H., & Al-Faryan, M. (2024). Mentorship and innovation as drivers of entrepreneurship performance in Africa's largest economy. Social Enterprise Journal, 20(1), 76-90.

Otaiku, A. A. (2022). Competitiveness analytic of Nigeria and Singapore: National productivity and economy. *European Journal of Business and Innovation Research, 10*(1), 67–111.

Oyinlola, M., Kolade, O., Okoya, S. A., Ajala, O., Adefila, A., Adediji, A., ... & Akinlabi, E. T. (2024). Entrepreneurship and innovation in Nigerian universities: Trends, challenges and opportunities. *Heliyon*, *10*(9).

Reddy, A. R., Sudhamani, C., Raju, K. S., & Srikanth, G. (2024, April). Examining Research Impact on Socioeconomic Development: Case Study. In *2024 Ninth International Conference on Science Technology Engineering and Mathematics (ICONSTEM)* (pp. 1-7). IEEE.

Scuotto, V., Magni, D., Garcia-Perez, A., & Pironti, M. (2024). The impact of innovation failure: Entrepreneurship adversity or opportunity?. *Technovation*, *131*, 102944.

Siyanbola, W. O. (2008).*Progress report on Nigeria's National Science, Technology and Innovation Policy* [PowerPoint slides]. Paper presented at the Experts' Meeting on Science, Technology and Innovation Policy Review, Nigeria.

Somadina, O., Ayo, V., &Ayoko, V. (2023). Research development in public universities in nigeria: problems and solutions. *European Journal of Higher Education and Academic Advancement*, (EJHEAA), 1(1), 83-94

Tariq, M. U. (2024). Social innovations for improving healthcare. In *Social Innovations in Education, Environment, and Healthcare* (pp. 302-317). IGI Global.

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